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ORIGINAL ARTICLES

A CASE OF INTRACRANIAL ANEURISM

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In Guy's Hospital Reports for April, 1923, there are papers by C. P. Symonds and Harvey Cushing called "Contributions to the Clinical Study of Intracranial Aneurysms." These papers are of great interest to anyone working in internal medicine because they describe so clearly a symptom-complex which is not excessively uncommon, which is often overlooked, and which apparently should be more frequently recognized than heretofore by virtue of present day methods of physical diagnosis and clinical examination. My paper reports a typical case which I recently encountered and which was necropsied in the Peter Bent Brigham Hospital. My object in reporting this case is to draw attention to the papers of Symonds and Cushing. and to bring the subject of cerebral aneurism before the notice of American physicians.

The paper by Symonds begins with a pertinent quotation from a publication by Sir William Gull which appeared in Guy's Hospital Reports for 1859. The beginning of this quotation reads as follows: "Aneurism of the cerebral vessels has been regarded as a disease of extreme rarity, and judging by the scanty records of it, we should conclude that the opinion was true. This apparent rarity, however, like all negative conclusions, is doubtful."

The fact that cerebral aneurism is not a remarkably rare condition becomes apparent from even a cursory review of the literature, Beadles, for instance, publishing so long ago as 1907 remarks on 555 cases assembled from other authors and his own experience.

The pathology of cerebral aneurism, also, has received a great deal of study. According to Fearnsides, who reviewed the subject thoroughly in 1916 it appears that syphilis is an exceedingly unusual cause of intracranial aneurism while cerebral arteriosclerosis or infective endocarditis is a more common cause: there is a group of cases frequently occurring in young persons in which the aneurism is congenital or depends upon the combined effects of increased blood pressure and a congenital weakness of the arterial wall at certain points. A cerebral aneurism may vary in size from "smaller than a pin's head" to one 25 mm. in diameter; it may be multiple, involving more than one vessel, although usually it is single.

Gowers and Van Hofman, whose combined collection includes 232 cases, point out that the middle cerebral artery is most commonly involved although any of the other arteries of the circle of Willis may be affected. All observers previous to Symonds and Cushing have felt that the clinical picture of cerebral aneurism was so indefinite as to make ante-mortem diagnosis almost impossible.

The papers of Symonds and Cushing mark a distinct advance in our knowledge of the subject because these observers describe a fairly typical clinical syndrome which characterizes many cases. As they demonstrate, the signs characteristically produced by a cerebral aneurism may be threefold. There may be signs from the aneurism due to the presence of any tumor at the base of the brain in or upon the outer wall of the cavernous sinus, there may be signs due to the systemic disease causing the aneurism, and, finally, there may be signs due to leakage of blood from the aneurism.

The signs due to mechanical pressure of the tumor, or neighborhood signs as Symonds calls them, are pain in the distribution of the ophthalmic division of the fifth nerve, signs of paresis and finally paralysis of the third nerve, exophthalmos, diminished visual acuity probably due to pressure upon the optic nerve, and paralysis of the fourth and sixth nerves.

The signs due to the disease causing the tumor are those of cerebral arteriosclerosis or less commonly infective endocarditis.

The signs due to leakage of blood from the tumor are those of sudden headache, or backache, followed by loss of consciousness. The cerebro-spinal fluid is bloody. There frequently develop in the eye-grounds relatively large extravasations of blood.

In brief, as Cushing says, an aneurism should always be considered in a differential diagnosis when an apoplectic attack or series of attacks of comparatively sudden onset is followed by symptoms pointing to the region of the internal carotid in its intracranial portion, namely, a unilateral oculomotor palsy with ptosis, and occipito-frontal pain with lowered sensitivity of the upper trigeminal skin field. Should there be in addition subhyaloid retinal hemorrhages, and should the cerebrospinal spaces be found to contain free blood, a diagnosis is reasonably certain.

CASE REPORT

My patient was a woman 43 years old, by profession a singing teacher, whom I first saw on January 18th, 1924. Her family history was unimportant. She had been well for most of her life except for scarlet fever as a girl, "curvature of the spine" when she was seventeen years old treated by prolonged rest in bed and later postural treatment, an attack of dry pleurisy when she was thirty years old, and a mild attack of influenza during the epidemic of 1918. She had been pregnant once and had had no miscarriages. With the pregnancy, however, there had been "eclampsia" and convulsions. On this account the baby was delivered by a Caesarian section.

At the time of the pregnancy there is little doubt but that the patient had high blood pressure, as an expert opthalmologist examined her eye-grounds four years later and found "all the evidences of a previous neuro-retinitis, the optic nerve heads being pale and partly hidden and the retina and choroid showing pigment spots and areas of absorption. There was no active process at the time."

After recovering from the pregnancy and its complications, she felt normally well and was able to lead a very active life working seven or eight hours each day. About two years before I saw her she consulted a doctor for persistent headaches and because she was finding her work excessively fatiguing. At this time, her doctor tells me, she had a little oedema of the ankles and a high blood pressure. He curtailed her diet and activities somewhat, and sent her to the country for two or three months. She returned in good health and spirits.

One morning last fall while apparently as well as usual, she suddenly felt faint, became nauseated, unconscious, and then had one or two epileptiform convulsions. After regaining consciousness a few hours later, she was blind in her left eye and had temporary visual difficulty in her right eye. She was taken to a nearby hospital where she remained three weeks under observation. During her stay in this hospital she was told that her eyesight was impaired because "many blood vessels were broken at the time of her convulsions." A reliable consultant's examination of the eye-grounds showed that both optic discs were swollen, there being more oedema on the right side than on the left. Through both eyes were spots of old exudate. In the left eye were a few scattered fresh hemorrhages, while in the right eye the hemorrhage was more plentiful.

For the first few days she was very sensitive to pressure in the right sub-occipital region although no signs of any paralysis were noted, but as time went on she improved and gradually regained her former level of health.

Within a month of her discharge from the hospital she again consulted her opthalmologist because she still felt as though she were "seeing through smoke." He noted considerable astigmatism in both eyes but no evidence of retinitis or retinal hemorrhages in the eye-grounds.

I first saw her about three months after her convulsive attack of the fall and about three months before her death. She was now complaining again of easy fatiguability, and frequent headache. She also noticed slight dyspnoea on exertion and stated that she had to urinate two or three times at night. On further questioning, she said that despite her new eyeglasses, the vision in her left eye continued impaired, and that often with her menstruation she felt "dizzy and queer."

Physical examination at that time showed that her mucous membranes were somewhat pale. The skin was a little dry although not as dry as is often seen in advanced chronic nephritis. There was a suggestion of puffiness around the eye and slight oedema over the shins.

The heart was beating forcefully and the left border of dullness was just outside the nipple line. There was no right sided enlargement or increased retro-sternal dullness. The action was regular and slightly rapid. No murmurs were heard, and the sounds were of good quality. The aortic second sound was accentuated and ringing and the peripheral vessels felt wiry. The systolic blood pressure was 190 and the diastolic 110. The lungs and abdomen were negative.

No evidence of paralysis was noted. The pupils were equal and reacted normally. The fundus showed well marked sclerotic changes but no evidence of hemorrhage or exudate. The knee jerks were present and equal. There was no Babinski or ankle clonus.

The hemoglobin was 70%. Red count 4,950,000. White count 6,600. Red cells and platelets normal. Of the leukocytes 26% were lymphocytes, 8% were large mononuclears and 66% were neutrophiles.

A single specimen of urine was acid, specific gravity 1.010, contained a very faint trace of albumen, and no sugar. The sediment contained squamous cells, a little renal epithelium, and a rare blood cell, leukocyte and hyaline cast.

The Wassermann reaction was negative. The blood urea nitrogen was four milligrams per 100 c.c. of blood.

I supposed that she had arteriosclerosis with hypertension, chronic myocarditis and a mild grade of chronic nephritis. Therefore I outlined general advice in regard to diet and rest, suggesting a low protein and salt diet, limitation of fluid intake, small doses of digitalis, and limitation of her teaching activities with a rest period each day.

She followed the prescribed regime for three months feeling fairly comfortable. She went to bed on the night of April fifteenth as well as ever. On the following morning she got up as usual but suddenly lost consciousness and had a generalized convulsion followed a few minutes later by a second convulsion. She was immediately brought to the hospital in a semi-comatose condition.

When she arrived she was easily roused and coöperated fairly well when spoken to. The eyeballs tended to rotate upwards where they remained with a constant slow oscillatory motion from side to side. The pupils were equal and reacted normally. The left fundus was very poorly seen although no hemorrhage or exudate was noted. The right fundus showed absence of physiological cupping and the arteries were uneven in calibre while the veins were abnormally full. In the superior nasal area there was a very large circular red spot almost the size of the disc in diameter. I think this was probably a subhyaloid hemorrhage. Along the courses of the vessels and between them throughout the fundus were many retinal hemorrhages. No exudate was seen.

The heart had a blowing systolic murmur heard at the apex and to the left of the sternum. The systolic blood pressure was 140, and the diastolic pressure was 90. There were scattered rales through both chests but no evidence of consolidation.

There was no paralysis, although the biceps and triceps and radial periosteal reflexes were not obtained, nor were the knee jerks or Achilles reflexes. There was no Babinski, Oppenheim, ankle clonus or Kernig's sign.

The temperature was 99°, the pulse 85 and respirations 30. The hemoglobin was 135%. Red count 7,420,000. White count 33,700. The red cells and platelets were normal. Of the leukocytes 10% were lymphocytes, 2% were large mononuclears and 88% were neutrophiles.

A single specimen of urine was acid, specific gravity 1.024, contained a large trace of albumen and a very slight trace of sugar. The sediment contained a few leukocytes, red blood corpuscles and a moderate number of finely granular casts.

A specimen of stool was liquid, and light brown in color. There was no evidence of occult blood.

A lumbar puncture was made at once and 35 c.c. of uniformly bloody fluid under great pressure was withdrawn.

After the lumbar puncture the patient regained consciousness in a surprisingly rapid fashion and even spoke about returning home. While she was conscious there was observed a partial lower facial paralysis but no demonstrable paralysis elsewhere. A few hours later she gradually became stuporous again and died about twenty-two hours after entering the hospital.

NECROPSY PROCTOCOL

The noteworthy features of the necropsy (P. B. B. H. A.—24-37) were as follows: The heart was normal in shape and weighed 360 gm. The valves were essentially negative except for the mitral where the valve edges showed some slight thickening. No vegetations, ulcerations, or scarring were seen. The coronaries showed a few small sclerotic plaques but no calcification. The aorta showed a few sclerotic plaques. There was no gross evidence of syphilis.

The kidneys weighed approximately 150 gm. each. They were of normal shape and consistency. The fatty capsule stripped with some difficulty and there was a little scarring of the surface. The fibrous capsule stripped easily and revealed a surface essentially negative except for the above mentioned scars. On section the markings of the kidney were distinct. The cortex varied somewhat in thickness but averaged 5-6 mm. The pelvis, calyces and ureters were not remarkable.

The brain was of especial interest. The dura was normally adherent to the calvarium. On the left side the convolutions were readily seen. On the right side, however, the dura was grey and through it appeared a dark red mass of blood clot which covered the entire right hemisphere with the exception of a small area on the anterior surface of the frontal lobe.

At the base of the brain there was a considerable amount of clotted blood. Some of this was washed away with a stream of running water so that the larger vessels could be identified. On the right side the internal carotid artery opened into a sac-like aneurismal cavity measuring 16 mm. long by 13 mm. in diameter. The inner wall of the cavity was smooth in consistency and gray in color except at a small point where the wall was dark red due to a mass of blood clot projecting through a tear in the wall. It was difficult at the time of the necropsy to determine whether or not the right middle cerebral artery was involved in the process although the other vessels of the circle of Willis seemed to be intact. The aneurism pressed on the optic chiasm and on the right optic nerve moving the chiasm slightly to the left of the mid-line.

CONCLUSION

In reviewing this case it is evident that the diagnosis of cerebral aneurism could logically

have been made before death by one familiar with the disease as it is described by Symonds and Cushing. There were signs due to mechanical pressure of a tumor at the base of the brain as evidenced by loss of vision in the left eye: this was probably due to pressure of the aneurism upon the optic nerve. There were signs of generalized arteriosclerosis, hypertension, and retinal sclerosis affording a proper background for a cerebral aneurism. There were signs of leakage of blood from the aneurism on two occsions, both evidenced by sudden attacks of unsciousness and convulsions, both accompanied by subhyaloid retinal hemorrhages or at least by large extravasations of blood into the retina, and one known to be accompanied by the passage of free blood into the cerebro-spinal spaces. While there was no unilateral oculomotor palsy with ptosis or occipito frontal pain with lowered sensitivity of the upper trigeminal skin field which Cushing has emphasized, yet, with this exception, the entire case history and physical findings were very typical.

One interesting point in my case and one which neither Symonds nor Cushing mention, is the rapidity with which the retinal hemorrhages cleared up after the first convulsive attack. If this observation is confirmed, it may perhaps serve as a helpful point in differential diagnosis of future cases, for one does not usually see the retinal hemorrhages of nephritis or hypertension disappear in a few weeks' time. Another interesting question is why clinical signs of polycythemia should have been present at the time of the final rupture of the aneurism.

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THE RESPONSIBILITIES OF A GENERAL HOSPITAL IN THE CONTROL OF VENEREAL DISEASE

BY ORA MABELLE LEWIS

FIFTEEN years ago, (in March 1908) Dr. Abner Post lectured at the Harvard Medical School on "The Place of a Hospital in the Community." His opening words were: "Many events during the last few years have revealed a feeling in the community that a hospital does its whole duty when it shelters, feeds and administers medicine to the individual patient." Dr. Post took issue with this feeling on the part of those who were responsible for hospital management and went on to show that care of the individual patient was (and still is) only one of the many responsibilities of a hospital. By a hospital he meant the semi-public institution supported in whole or in part by taxation, private endowment or subscription—a perfectly good definition of the general hospital we are about to discuss in relation to its responsibilities for the care of syphilis or gonorrhoea. From being just a refuge for the sick, hospitals have come to be used as a protection to the community against the spread of contagious diseases and finally are generally accepted as institutions of learning. As time has gone on special hospitals and institutions have taken over some of the work originally done in the general hospitals—the latter, however, continue to function—perhaps more truly today than ever before for three fundamental reasons—the care of the sick person, the protection of the community from the spread of disease and for educational purposes.

Let us then consider what a general hospital can and should do for the patient who has syphilis or gonorrhoea, treating him first as an individual, but recognizing that a disease is under control from a community point of view only when there are ample facilities in the community for adequate treatment of every individual afflicted and hospital accommodations at least for those whose living or working conditions or both, together with the presence of disease in an infectious or contagious form, would make such patients a menace to the community.

It is not necessary to discuss in detail with the group here present all the reasons why hospitals have not admitted to their wards patients with syphilis or gonorrhoea. You all know them better than I do. Some of the grounds for exclusion of such cases I am sure can be eliminated or modified; those I will mention later. Now however I wish you to consider what from a medical and a social point of view could be done for this group of patients and the community were more beds in general hospitals made available for their care. Much that I have to say about the use of beds for the syphilitic would be equally true for the gonorrhoeal patient—but we are more familiar with what can be done for the syphilitic. Few beds as there are available even for the syphilitic, we have some and can speak from the experience gained from their use.

**Read before the New England Hospital Association, Providence, R. I., May, 1923.

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Syphilographers tell us that for practical purposes of treatment or public health measures we may divide acquired syphilis into two main classifications—early and late syphilis—early, including primary and secondary syphilis, or in other words syphilis presenting the symptoms in patients which make them potentially a menace to the community. The group of late syphilitics while perhaps more or less handicapped by the inroads of the disease is outside the scope of this discussion. The damage has already been done, there is no danger to the community from any possible contagion and it is often too late in the day for the disease to be transmissible to the next generation. These patients are pretty generally accepted for hospital care as problems for the internist and the social worker to solve. Any further comment on their needs would be an appeal for more chronic hospital beds. There is a large group of cases which corresponds closely to that of the late syphilitics where the symptoms are the result of old or chronic gonorrhoea—their needs are for surgical or chronic bed care and there are hospital accommodations for most of these patients.

The patient with primary syphilis presents a condition which upon first thought would not even suggest to many the need for hospital bed care. The patient has not been struck down in his tracks to the point of being physically or mentally incapacitated. He is physically able to work, his immediate symptoms can be allayed quickly with drastic anti-syphilitic treatment, proper instructions can be given him which would prevent his willingly or knowingly spreading the disease. In other words he is for the moment apparently a typical ambulatory case. Why then use a bed for him thereby preventing some really sick person from getting needed bed care? The answer seems to lie in the fact that syphilis is a communicable disease, its ultimate cure may be practically assured in early cases if consistent treatment can be given over a long enough period, but the obstacles which face the patient attempting to carry out this treatment are legion. It is only by *aiming* at the cure of as many individuals as possible that we can control the spread and perhaps ultimately eliminate the disease itself.

After the diagnosis of early syphilis is made, treatment should start immediately. Now it happens that the drugs most commonly employed in combatting syphilis are two which separately or in combination must be used with great care and yet the dosage must be adequate. Preparations containing arsenic and mercury are in themselves toxic to a greater or less degree. The purpose of these drugs is actually to kill the treponema, wherever present, but the toxins released by the dead treponema many times cause the patient to have certain "reactions." A patient so affected is much better off in bed and it is more satisfactory for the attending physician to observe a patient during his first arsphenamine treatments than to prescribe such treatment at stated intervals and have only the patient's word for what goes on in the interim.

Most syphilographers agree that it is not feasible to administer arsphenamine to outpatients oftener than once a week, whereas a patient in a ward, under constant observation, can safely be given his intravenous injections at more frequent intervals. If complications or contra-indications arise, they can be noted and treatment modified. There are certain patients who have a distinct idiosyncrasy against arsenic or mercury or both. If a patient is in a ward over a sufficiently long period when treatment is first instituted these facts can also be established to a considerable degree. By bed care then it is possible to concentrate the early treatments into a shorter period of time than could be done to an out-patient, at the same time protecting the patient from the possibility of added discomfort or worse.

The patient with early syphilis, facing a long, tedious period of medical treatment, may also be brought quickly up against many social or economic complications as well. It is often impractical if not well nigh impossible for the patient with early syphilis to remain at home, or at work or both without danger to other people, without everybody's knowing the diagnosis or without losing his job. Syphilis is well recognized as a disease of youth, that is of persons between the ages of 21 and 34. They may be living at home with younger children in the family, in crowded home conditions, or in lodging houses and eating in public places. One should hesitate a long time before allowing patients with early syphilis to return to such surroundings while infectious. If the patient's work is that of food handling—or any other occupation in itself a menace to others, or if his working conditions are not good and other people subjected to possible infection, then that patient should not be allowed to return to his job while infectious. An idle person with either syphilis or gonorrhoea is much better under supervision in a hospital ward. Above all it is important to keep a patient from losing his job. Few employers can understand why a person who looks and feels all right should not be at work, nor why that same person should go so often and for so long a time for out-patient treatment. Untold numbers of patients have lost their jobs because of this but I have never known a patient to lose a job while on the ward. When a patient has once been on the ward the employer is much more willing to let him return weekly over even a long period for out-patient care. It seems reasonable to him that a man who has been sick enough to be in a hospital should need further treatment. It is also a simple matter to protect ward patients from misunderstanding arising from the diagnosis. This is especially important if the disease is accidently acquired and during one period of sixteen months on the ward at the Massachusetts General Hospital we had an average of one patient all the time with early syphilis—extragenitally acquired—that is a true communicable rather than "venereal disease" problem. During the patient's stay in the ward physicians, nurses and social workers get to know him and his family and friends. Patients are often greatly upset upon hearing the diagnosis of syphilis or gonorrhoea. Life then holds very little for them because they know as a rule none of the hopeful side, only the frightening, discouraging things. Patients receiving bed care feel that something is really being done to start them more surely on the road to recovery. They are as a rule glad to go into the ward for the short time advised and often during their stay gain courage to face the future. The educational value to any patient going into a hospital is great, just the discipline and regularity of hospital routine and when the time spent there affords an opportunity to discuss his problem with experts along medical or social lines the contacts made and knowledge there gained can not help but be of value all through the time the patient is under treatment or supervision. This is true to a certain degree with practically everyone—no matter how lacking he may seem in intellectual attainment. In addition to these general cases of early syphilis there are three other groups of patients who should be mentioned when appealing for hospital care for the syphilitic—not already admitted without question to the wards of a general hospital.

There are a certain number of pregnant women, known to be syphilitic who may or may not be infectious at the time of pregnancy, who need hospital care. Rather more vigorous treatment is necessary in these cases, not only for the women but for the children in utero. Such treatment should be most carefully regulated. From the community standpoint also these women may give birth to infectious syphilitic babies. From the point of view of those attending them at the time of confinement everything should be done to make the patients as thoroughly non-infectious as possible. But pregnancy often carries with it certain kidney complications which anti-syphilitic treatment may aggravate. In such instances a period of ward observation is indicated and hospital beds should be available. This is especially true for a pregnant woman with *infectious lesions.* I know of several instances where it has been impossible to get pregnant women to take outpatient syphilitic treatment with resulting damage to the foetus. Had bed care been possible in the community where they lived it would have been accepted gladly.

Next comes the congenital syphilitic baby—the one who is or may become extremely infectious. Practically all hospitals admitting infants close their doors to this one of the most difficult and yet one of the most worth while problems presented to us today—one closely associated with the conservation of child life. We leave extremely infectious infants in homes where friends and neighbors (to say nothing of other children and relatives) can kiss and fondle them. We ask non-medical social agencies to supervise them in selected boarding homes and if bed care must be arranged it has to be in a pauper institution. Most syphilitic babies are difficult feeding cases, are susceptible to intercurrent diseases but may respond readily to proper care. To be sure a certain number of them die, but the ones who live become more nearly, if not quite, like other children provided they get the start in infancy which they need. Every infectious syphilitic infant is potentially a case for ward care. If the hospitals will accept their part of the burden in the care of these infants as well as the protection of the community from them then the burden on the community from these same children in later life will be lessened to a great extent, and non-medical agencies will be more willing to do their share when the need comes to use special schools or community resources—as some of these children may in spite of all that can be done in infancy. even under the best of conditions.

That brings me to the last group of syphilitics which any general hospital, admitting children at all, should be willing to accept. It is as true of the older congenital child as it is of the infant, that many of the hospitals in New England established for children do not accept these patients as such into their wards. What I say about the general hospital in this particular should apply to them a thousand times more. Older children with congenital syphilis present numerous medical and surgical problems for the aurist, opthalmologist and the orthopedist as well as the syphilographer or pediatrician. They are often affected with one or more symptoms of interstitial keratitis, deafness, symmetrical syncvitis to the point of being temporarily or even permanently handicapped. But they respond almost miraculously to anti-syphilitic treatment. The general treatment covers a long period, the special treatment for eye or joint symptoms is often difficult to manage at home. Hospital care is most essential. We are told that these older children are practically never contagious at the ages of 6-15, the period at which these symptoms generally appear. If that is true, and all evidence points that way, then there should be no hesitation on the part of any hospital admitting children to its wards to admit these. The future of these children as economic members of the community would be infinitely greater—the chances of blindness or other handicap temporary or permanent many times less and the medical work at the time much more satisfactory and thorough. From an economic point of view, even if this care had to be given free, it would probably amount to much less in the end than would the long continued or recurring out-patient care.

To return now to the hospital as an institution of learning. At first this was interpreted as meaning medical students and nurses alone. We now include social workers, teachers, research workers as well as the patients themselves. Consider the difficulties which have for so many years faced the young physician meeting his first case of syphilis. How can he make his diagnosis? Perhaps he has never seen a case in all his medical course. In the old days the courses were mostly theoretical—though occasionally cases were seen in O. P. D. clinics; but until hospitals admit cases of every kind for study and treatment students, nurses, and physicians themselves cannot acquire the knowledge necessary to make them proficient in either making diagnoses or advising treatment. Too much cannot be said of the knowledge that has been reaped from the study of literally hundreds of cases of syphilis since early as well as late cases have been admitted to the wards of some of our larger general hospitals. It is not only the syphilographers and the patients who have gained by this. Specialists in nearly every branch of medicine and surgery have been constantly called in consultation. Syphilis is an intensely interesting disease from any standpoint one may approach it, and the person suffering from an interesting disease always has the advantage over the one with a chronic and uninteresting one. There is one other point on the economic side. It has a direct bearing on the administrative as well as the medical side of our problem. The turn over in these early cases of syphilis is comparatively rapid, 10 to 14 days is the average length of stay necessary in the wards to heal all open and dangerous lesions and to clinch as it were the beginning of the treatment. What it would have taken at least 3 weeks to do for one of these people as out-patients, can be done in a much shorter time on the ward. The patient does not lose his job, often his pay goes on. The hospital bill is not necessarily prohibitive—at least something can be paid. By getting in good work at the start the patient or his family is not as likely to return at some later date and ask for free medical care when the original patient—the breadwinner in the family—has become incapacitated because of inadequately treated syphilis.

THE BOSTON MEDICAL AND SURGICAL JOURNAL for Jan. 18, 1923, contains an article by Dr. Channing Frothingham entitled "An Opportunity to Enlighten Hospital Trustees." It is short but very much to the point. If there are any of you here who have not read it I hope you will do so at once.

Dr. Frothingham gives clearly and concisely the reason why syphilis should be regarded as a serious problem in the community and why hospital bed care is so often desirable. He then mentions explicitly the names of general hospitals which will or will not admit to their wards syphilis during its acute stage.

There might be some reason he continues for this discrimination against the admission of acute syphilis to general hospitals if such a procedure were a source of danger to the other patients or the attendants in a hospital. However, the admission of these cases to the open ward of a hospital has not been found to be a source of danger to the other inmates. Since its opening in 1913 the Peter Bent Brigham Hospital has admitted cases with acute syphilis to the open wards and used the same precautions that are used in cases of pneumonia or typhoid fever. There has been no case of infection within the hospital from these patients. It seems therefore that it is a safe procedure so far as patients and attendants are concerned, to admit acute syphilis to the open wards of a general hospital.

In 1914 when the South Medical Department for Syphilis was established at the Massachusetts General Hospital a limited number of beds were made available in a ward built on the private room plan. There were beds for men, women and children as well as cribs in the nursery for infants. Some cases of congenital syphilis in older children have been admitted to the children's wards and many to the wards at the Massachusetts Eye and Ear Infirmary. Cases o facute secondary syphilis with eye complications have also been admitted to the wards at the Eye and Ear Infirmary. It has been the policy of both these institutions to keep the patients in the wards as short a time as possible and yet as long a time as necessary to relieve symptoms, to heal infectious lesions and return the patient to the community without danger to other people.

The following briefly stated may serve to illustrate some of the types of cases which have been admitted to the ward at the Massachusetts General Hospital within the past few months.

I. A Sicilian school boy of 15 with early secondary syphilis—member of a large family living under such crowded conditions in the North End that family has already been warned by the B. of H.

II. A man and his wife—both with early syphilis and very infectious—one a cook and one a butler in a private family.

III. A pregnant unmarried girl with early secondary lues. Many small children at home.

IV. A child of 5 years with primary syphilis of the tonsils and beginning secondary syphilis—also his brother of 2 years with active congenital syphilis. N. B. Syphilis had entered this family after the birth of the older children.

V. A man with secondary syphilis who from his own statement had been exposing some woman almost daily to the disease.

VI. A young married couple boarding with the man's family, both with secondary lues. Source of infection not known.

VII. Young married woman, four months pregnant, with secondary lues.

VIII. A young woman with secondary syphilis—awaiting trial in another state on cohabitation charges.

All the above were infectious and the danger to the community was lessened almost to nil by their stay in our wards.

If you will multiply these cases by the number of beds available for their care and take also into consideration the rapid turnover mentioned earlier in this paper you can estimate for yourselves how much better both patients and community must be from their stay in the ward.

In speaking on "Venereal Disease" so called we can not and should not confine ourselves to syphilis alone. In fact we prefer to discuss syphilis as a communicable disease rather than a venereal disease, because of its manifold ways of being contracted. The same is not quite as true of gonorrhoea although there are many innocent victims of infection. These victims are for the most part mates of the married gonorrhoeal patient. Outside pauper institutions there are even fewer hospitals which will accept a case of active gonorrhoea into its wards. The prejudice here seems even greater than with the syphilitic but the need is appalling both from the patients' standpoint and that of the community. The young man needing daily treatment has the same difficulty in keeping his job. Many young women who are expected to take daily treatments at home can not possibly carry them out because of conditions under which they are living. The educational value to the same patients if treatment were given in a ward as part of a daily routine is just as important as the sending of patients with tuberculosis to a sanitarium. Within the past week I have been appealed to by the Overseers of two different places (one a town without a general hospital—one a city with one) asking if there was any place where a child and a woman with active gonorrhoea could receive bed care. Even the State Infirmary at Tewksbury refused admission to these patients because they had legal settlement.

In closing I should like briefly to discuss with you the reasons why patients with early syphilis or gonorrhoea are not admitted to hospitals for ward care. Of course there are many minor and temporary reasons such as lack of beds, shortage of nurses or general lack of equipment. All such reasons can be overcome in time if the need is great enough and the desire equally so.

The real reasons seem to resolve themselves into three. First, an economic reason which I do not feel competent to discuss at all from the hospital angle. I know the expense of caring for these patients may be great but it would seem justified if the patient can be kept an economic working factor in the community, if that community can be protected from the disease and if we consider the children of these patients.

Next, hospital authorities have not kept up with science in the change of attitude about prevention, cure or methods of transmission of these two diseases. The prejudice of the ages still exists in the minds of some superintendents and trustees both as to the medical and moral problems involved. "A patient suffering from venereal disease should receive no consideration." But which patient has a venereal disease, which a communicable one only? If you can determine that and wish to exclude a medical problem on moral grounds that is one thing, if on medical that is quite another. If syphilis and gonorrhoea are true venereal diseases, then their spread must be by sexual exposure alone. If that is true, then from a medical point of view such patients are perfectly safe to have in our wards. As a matter of fact they should be considered from the contagious disease standpoint and the statements about syphilis made by Dr. Frothingham seem to be borne out by as many references as I have been able to consult.

Finally, rules made many years ago by the hospital authorities, and perhaps even incorporated in their charter, have excluded these patients. On examination many if not most of these old documents speak of the exclusion of persons suffering from "venereal disease"—syphilis or gonorrhoea as such are not mentioned. I am unable to find either medico-legal, or legal definition of "venereal disease." A number of hospitals have expressed a willingness to admit such patients but feel they can not do so on account of their charter. If there is no legal definition of venereal disease and if these patients were admitted, as they should be under the diagnosis of syphilis or gonorrhoea, the charter could not be revoked without a hearing. I am sure that the medical profession would rally to the aid of the hospital in ruling out the use of the term "Venereal Disease." While this long legal process was going on, several patients would have received ward care. A precedent would have been established and you all know what happens in a hospital when once that has occurred.

THE time is at hand, even now here, when thousands of children will assemble in our schools. Among these will be those who are well, those who are not well, and those suffering with minor defects which, if not corrected, will seriously handicap them in their school work.

Be ready and willing to give to the Department of Health your best coöperation in its efforts to safeguard the school children.—*Bulletin*, Chicago Department of Health.

SYPHILIS: THE DISEASE OF DISEASES*

BY C. BERTRAM GAY, FITCHBURG, MASS.

BEFORE entering upon the discussion of this very interesting disease, allow me to say by way of preface, that the subject is presented before this body today, at the request of some of your members.

thanks for the honor conferred upon me as your designated orator, and I trust I shall be able to interest you all; to enlighten a few and to stimulate many, to greater thought along these lines and to impress the profession of this Worcester North District, with the great importance of this remarkable disease.

The great Osler once said, that the man who knows syphilis, knows medicine, the implication being that all too few men know syphilis and that its prevalence is far greater than is appreciated or recognizable.

It has been my purpose in scanning the much literature on this subject both here and of Europe, to cull out and submit to you those clear cut, strikingly practical phases, which shall be easily assimilated and remembered by all, hoping that they may be a real potent factor in adding to our local knowledge of the diagnosis and treatment of this disease and thereby aid materially in curtailing its rapid spread in our midst.

Syphilis is a disease which has undoubtedly caused more physical and mental suffering than any other disease in the whole category.

It therefore will be interesting to note something of its history and wide geographical distribution.

The time at which syphilis first made its appearance as a recognized disease has been a much debated question for many years.

It is the commonly accepted belief that when Columbus discovered America, his sailors contracted syphilis from the Indians, carrying back to Europe a disease hitherto unknown.

A few writers, however, present strong arguments to show that the disease was recognized at a much earlier period and it has apparently been proven that the Chinese, more than 2000 years B. C., had knowledge of this disease and suffered from it.

It was not generally recognized by the medical men until the end of the 15th century, when, because of its wide diffusion, it was extensively studied and accurately described.

Some historians writing in a lighter vein have even suggested that back during the time of Job, (that man of many boils,) syphilis was known and that his sufferings were due to the fact that he was a victim of this disease.

Syphilis in Europe first appeared as a great epidemic which spread rapidly and affected all races and classes. We read that in 1494 Charles VIII of France invaded Italy for the purpose of conquering Naples. His expedition was successful in accomplishing its object, but his troops became so weakened by venereal disease that he soon had to relinquish his conquest.

The Italians considered that the French soldiers were responsible for the introduction of the disease and called it "the French disease." The French believed that the soldiers contracted it in Italy and they termed it the "Italian disease."

Whenever the affliction appeared in any new country, the disease was named after the people from whom the infection was supposed to have been obtained. The English called it "the French disease," the Russians called it the "Polish disease," the Japanese called it the "Portuguese disease," and the Spaniards, believing it to have been introduced from the New World, called it "the disease of the Espanola Isle" known by the Indians as Haiti.

During the 5 year period—1494 to 1499, this plague had spread to all the countries mentioned as well as into Switzerland and Germany.

The severity of the epidemic in the Old World would indicate that such a disease was new to that country. Since the most recent communication with the outside world was with the West Indies, it was natural to suppose that the disease was introduced from that locality.

Careful and extensive studies were made of European and Oriental bones, of the pre-Columbian age, by Virchow, the eminent anthropologist and pathologist, but in no case was he able to find lesions which might indicate syphilis.

Whereas, study of bones collected from various parts of North America, Central and South America, revealed the presence of syphilitic lesions. This fact, supported by the discovered writings of various authors, furnish the best evidence indicating the existence of syphilis in America before the arrival of Columbus. There now sems to be plenty of proof that the sailors of Columbus's crew contracted syphilis while on the island of Haiti, and carried it back to Spain. Up to the early part of the 19th century, the 3 venereal diseases,—syphilis, chancroid and gonorrhœa, were not clearly differentiated and were thought to be fundamentally the same disease.

Until a few years ago syphilology was apparently at a standstill. The main facts of its history, just enumerated, were well established, and its therapeusis was supposedly settled. Its etiology was entirely unknown. In 1903 it was demonstrated that certain anthropoid apes were susceptible to syphilis and thus the disease was

Also it seems fitting at this time to express admitted into the field of experimental medicine.

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*Read at the annual meeting of the Worcester North District Medical Society, April 22, 1924.

In 1905 the casual agent, the Spirochaeta Pallidum, was discovered and isolated by Hoffmann; 6 yrs. later, in 1911, the organism was first grown in pure culture. There have been found to exist 4 genera of the spirocheta and the one to which is attributed the syphilitic symptoms has been named the Treponema pallidum.

The treponema is a spiral organism, very motile; it multiplies by transverse division; it stains faintly and with great difficulty.

Noguchi suggested the possibility of the existence of various strains of the organisms which had a predilection for certain tissues, such as the neuropathic strain, vascular strain, etc.

Clinically there is evidence to support this belief, since persons who are afflicted with marked cutaneous lesions rarely have much nervous involvement and similarly with the case ot bone syphilis. The treponema has been found in smears and sections of all primary and secondary lesions, occasionally in gummata of the tertiary stage and also in the brain in cerebral syphilis.

Outside of the body this organism may exist on moist towels and on eating and drinking utensils. It vegetates and does not multiply: it rapidly becomes sluggish and there is motion rarely after 24 hours, at room temperature; fortunately, therefore, it cannot infect only for a very few hours.

The means of infection to which the physician is liable is from sputum, while making a throat examination on a syphilitic patient. Fournier reports 5 cases of chancre of the eye, the infection having been introduced by the coughing of syphilitic matter into the eye of the examining physician. Discharges from the nose and sneezing furnish possible sources of infection.

There is a possibility of infection from insects, especially from the bedbug, though this has not been as yet definitely proven.

Physicians have been reported as infected while making vaginal examinations, due to presence of abrasions on the examining hand.

This means is not so common since the advent of the rubber glove. Indirect infections by vaccinations; ritual circumcision and tattooing have been reported.

Syphilis, then, is a chronic, specific, infectious disease, transmissible both by inoculation and heredity.

Inoculation may be both direct and indirect. Of the acquired cases only 6% are extra-genital.

Of the congenital cases there is no heredity in the strict sense of the term, all cases having been shown to be due to the direct passage of the specific organism through the placenta of the mother to the foetus. Transmission from the father then occurs only indirectly through the infection of the mother. Though the mother shows no outward signs of the disease, the placenta has repeatedly been shown to be the seat of the treponema.

PATHOLOGY:

By the time the initial lesion becomes evident the treponema can be found in the lymph nodes, the spleen and the bone marrow.

As they multiply they are disseminated through the blood and lymph streams by periodic explosions, until changes in the skin and mucous membranes are noted.

Recent studies show, that contrary to the general belief, the central nervous system is often very early involved, sometimes even before the appearance of the skin manifestations.

Treponemata are less in the tertiary period and much more difficult to differentiate.

Infectiousness of the blood has been shown in the primary and secondary stages.

There is no immunity in the true sense of the word, as it has been demonstrated that with a cure of the syphilis, the individual again becomes susceptible to infection. (It is our duty to give careful instructions to our patients, as to this fact, which is contrary to the prevailing idea of the street.)

Much work has been and is being done to make a prophylactic or curative serum or vaccine for syphilis, but the prospects of obtaining this in the immediate future are not very promising.

The term Latent Syphilis, long used, has been found, in the light of further investigation, to be a misnomer, and the term, concealed syphilis, is being substituted, as recent microscopical studies demonstrate that pathological changes are going on steadily in some of the deeper lying structures, especially in the aorta and in the meninges of the brain and cord.

SYMPTOMATOLOGY:

On the basis of its clinical course, syphilis is classified into periods, as follows: Primary Incubation period—with constitutional disturbances. Primary Stage—with appearance of the chancre or initial lesion. The time elapsing between the inoculation and the appearance of the chancre will average 3 weeks. The chancre also persists, with treatment or without, for a 3 week period.

Secondary Incubation: This is the period elapsing between the appearance of the chancre and the development of the cutaneous and mucous membrane lesions and it will average 6 weeks.

Secondary Stage: This stage is from a few months to several years.

Tertiary Stage: This stage is subject to all possible variations, but it usually begins some 3 years from the time of the initial lesion and lasts indefinitely.

CHANCRE:

There are several types of chancre, with more or less distinctive characteristics. The rule is for it to appear as a small innocent looking papule or erosion which soon increases in size until it takes on all the qualities of an indurated ulcer. In 3 or 4 weeks nothing remains but an indurated area or a pigmented scar.

There is the Eroded type, with very slight, thin induration and very small amount of seropurulent discharge. There is the Indurated Papule, which is rare. This presents as a flat, dark red papule, not greatly indurated, with its apex covered with a small scale. The HUNTERIAN or true chancre, the "hard chancre," has a distinct ulceration, circumscribed, cupped out and covered with a dirty, sanguineous exudate. The so-called "Silvery Spot" is not often seen. It is always discovered on the glands penis and looks as if the glands had been touched with a nitrate of silver stick.

The Herpetiform type is a rare lesion and difficult to differentiate from the true herpes progenitalis. It is very superficial and covered with an exudate as from the vesicles of herpes.

It is, however, markedly indurated. The Diffuse Syphilitic Oedema is a chancre type occurring on long foreskins and on the vulva. It consists of a diffuse, brawny, non-painful oedema.

The Mixed Chancre may coexist with chanchroidal ulcers and be completely masked. The painless character of all these types should always excite suspicion. As to the site of chancre, it is estimated that 94% are found on the genitals. In the male the usual seats are at the coronal suture; the fraenum; the glands itself; the meatus; the dorsum of the penis, and not infrequently on the scrotum. In the female, favorite site is on the labia majora, though they occur often at the meatus, in the vagina or on the cervix.

Due to this distribution the chancre in the female most often passes unnoticed. The common extra-genital sites are the lip, tongue; tonsil; finger; eyelid and breast. Clinically diagnosis is made by the indurated character of the ulcer, its mobile, sharply defined borders; the absence of pain or tenderness; the scant, blood-stained, thin secretion, together with adenopathy of the regional lymph nodes.

Laboratory diagnosis can positively be made by means of the smears with dark field illumination. The Wasserman is not to be relied upon during this very early stage. Only 27% positive Wassermans during the first week as against 79% during the 5th week.

The *second stage* is ushered in by a general dissemination of the organisms; a real general septicaemia. The symptoms of malaise anorexia, nausea, loss of weight, headache, falling of hair, general body pains and fever, follow in rapid sequence. Headache is often very severe and worse at night. There may be sore throat, with hoarseness and a rasping cough. Pains in the joints, muscles and bones soon supervene with noticeable inflammation. There is general enlargement of the superficial lymph nodes, painless and insensitive in character, varying in size and degree. It is during this stage and often early that keratitis and iritis, both plastic and serous in type, obtain. The troublesome skin lesions, troublesome only because noticeable, now present and these often tax the skill of a skin specialist to clearly decipher and correctly describe; 75% to 80% are often so mild as to escape unnoticed, which accounts so often for a history lacking definiteness in this particular.

If present, the absence of itching, burning or pain should attract our attention. Polymorphism is usual: macules, papules, pustules, vesicles, blebs, squamous patches, tubercles and gummatous tumors, all present in due time in untreated or insufficiently treated cases.

Squamous syphilides upon the palms and the soles of the feet are very diagnostic of syphilis. All of the late skin lesions take on a brownish hue and may be described as bronze or copper colored due to a deposit of pigment in the skin.

Onychias and paronychias are common. Alopaecia is recorded in 10% of all cases. The mouth and throat do not escape. These lesions correspond to those on the skin, only they are kept constantly moist and are subjected to more irritation. The contagious "mucous patch" is an opalescent, gray patch, not unlike the common cancrum oris. It is found on the lips, inside of the checks, on the gums and on the hard and soft palates, also between the toes, about the anus and at such points as the skin is always kept moist and chafes against itself. In these latter locations the eruption is designated as "moist papule."

The late nose and mouth lesions are nodular or gummatous in type and are the cause of the many perforations occurring in these locations.

Fever is uncommon in the primary stage, but most always present during the secondary period. Fournier describes it as very variable, being intermittent, remittent, continuous or irregular.

Third Stage: In this stage there are all possible variations of symptoms both in untreated and in insufficiently treated cases. This is the stage of the tumor formations or the so designated gummata.

SPECIAL SYMPTOMATOLOGY OF THE 2ND AND 3RD STAGES:

Visceral manifestations are always late. Favorable conditions for growth are found in the aorta and arteries in general; the heart; the central nervous system, the liver and testicle. Gummata or ulcers of the oesophagus rarely occur. Organic gastric symptoms occur between the ages of 35 and 40, from 10 to 12 years on the average from the inception of the initial lesion. Chronic gastritis is more common than acute. Ulcers of the stomach are rare and when they do present they are due to the endarteritis. If gastric gummata are diagnosed they are usually multiple. Syphilitic involvement may occur at any point throughout the digestive tract, but the rectum is the most common seat; here gummata are followed by stricture and stenosis. Chronic diarrhoea may be a cause for seeking treatment and if this obtains it is persistent. It is characterized by bloody discharges over a protracted period of time. In its cachexia it much resembles carcinoma.

The appendix is predisposed to a latent involvement and Gaucher states that a large percentage of appendicitis early in life is syphilitic in origin. Out of 33 cases studied he found 11 positive Wassermans.

RESPIRATORY TRACT:

The nose is often involved by gummatous growths of the bone, cartilage, periosteum and mucous membrane of the septum, none may escape. Ulceration and perforation rapidly follow. The characteristic sinking in or depression of the bridge of the nose, called "saddle nose," is practically always of syphilitic origin.

Syphiloma of the mediastinum and bronchotracheal adenopathy may exist with lung syphilis in late cases, where the differentiation is difficult from pulmonary tuberculosis.

The Liver is especially prone to tertiary disease, the accompanying jaundice being due to hepatitis and not to obstructive causes.

CIRCULATORY SYSTEM:

Syphilis is essentially a disease of the blood vessels with the aorta the point of predilection. It is now believed that the heart rarely escapes. We owe this knowledge chiefly to the X-Ray and microscope. Genito-Urinary Tract; Chronic nephritis, a fruit of the tertiary stage, is not uncommon. The bladder is frequently recorded as the seat of syphilis since the advent and routine use of the cystoscope.

Testicular involvement is very common during the tertiary stage; 39% of cases, incompletely treated, develop diffuse, interstitial orchitis, which may be bi-lateral. The testicles are always free from pain or tenderness.

Bones are a relatively frequent seat of syphilitic involvement especially following in the wake of slight trauma. Osteoscopic pains, chiefly at night, while in bed, prove often to be an important diagnostic factor in obscure, late cases. The pain is caused by periosteal hyperaemia.

CONGENITAL SYPHILIS:

Fournier has said this is the disease which kills most infants and produces most abortions. Out of a series of 330 pregnancies, 40% aborted due to syphilis. To quote Osler: The earliest pregnancies end in abortion; then dead children are born; then living children are prematurely delivered; then full term syphilitic children and finally, full term healthy children.

After birth, symptoms manifest themselves in both early and late periods. A child carried to full term usually develops syphilitic symptoms during the first 3 week to 3 month term of life.

One or more of the following symptoms will be noted; snuffles and hoarseness; eruptions on the skin and mucous membranes; splenic and hepatic enlargements; iritis; cachexia, and inflamation of the epiphyseal junction of one or more of the long bones. Diagnosis after infancy, from the 5th to the 15th year, present the following symptoms as a guide; viz: flat nose; coryza; corneal opacities; deformities of the tibia; thickening of the long bones near their ends; pharyngeal or palatal ulcerations; deformities of the teeth; linear cicatrices about the lips and nostrils and a history of painless otorrhoea in childhood. The child is weazened, yellow and loose skinned. We should be on the lookout for this train of symptoms and ready to investigate proof of cause and provide proper intensive treatment.

DIAGNOSIS:

This is not difficult, either in the acquired or congenital form, if one is thorough in his examination, is forever thinking in terms of syphilis and does not neglect any of the clinical guides.

After a tentative diagnosis resort to the laboratory aids makes diagnosis positive in most cases. Staining is only applicable to primary and fresh secondary lesions. The Wasserman test is proving more and more reliable. Out of a recent series of 4,000 positive Wassermans, only 0.3% were found to be suffering from other than syphilitic disease. Positives may be obtained in some cases of malarial fever, also in diabetes, with acidosis. To show the rapid progression of the disease, Craig's recent series of 600 tests are very interesting and enlightening; 1st week, 36% positive; 2nd week, 59%; 3rd week, 68%; 4th week, 77%; 5th week, 81%.

In syphilis of the central nervous system, the spinal fluid often furnishes a positive reaction when the blood serum is negative.

If a large quantity of cerebro-spinal fluid is used (1 c.c.) positives are obtained in all cases of Paresis and cerebro-spinal syphilis and in more than 90% of cases of Tabes.

These findings prove that the parasyphilides were a misnomer and that syphilis is the direct cause of probably all cases of paresis, tabes and cerebral syphilis. A negative Wasserman is of little or no value after a patient has recently drunk any amount of alcholic liquor; also following ether or chloroform anaesthesia a very weakly positive is obtained, if at all, hence, remember not to attempt a Wasserman test for 3 or 4 days following general anaesthesia. A third valuable method for the diagnosis of primary syphilis has recently been introduced and named the "local" Wasserman reaction. This reaction is simply the ordinary Wasserman reaction carried out on the serum that exudes from the surface of a primary lesion, instead of on a patient's blood serum. It is not difficult, ordinarily, to secure enough serum. The lesion is simply sponged with normal salt solution and is then dried and gently squeezed. The serum that exudes is collected by capillary suction in a pipette. From investigation and experimentation it appears that the local Wasserman reaction is of much more value in primary syphilis than is the blood Wasserman reaction, and that it yields as high a percentage of positives as the dark field microscope.

TREATMENT:

Begin intensive treatment at the earliest possible moment, after a positive diagnosis is assured, either by the discovery of the treponema by the dark field microscope, the local Wassermann reaction or the blood serum Wassermann. Keep the chancre clean only, or as the patient expects something to be done, prescribe calomel as a dusting powder or bichloride as a wash. Do not excise as the treponema are already at large in the blood stream.

No radical change need be made in the diet.

Baths at the Hot Springs or elsewhere are efficacious only in increasing elimination and indirectly allowing the patient to handle a greater degree of medication.

Specific treatment is confined to four sovereign remedies, viz.: Mercury; Arsenic; Iodine and Silver, the latter very recently coming into some favor. All the authorities are unanimous in the warning not to give up the use of mercury, but to use it in conjunction with some form of the arsphenamin group.

MERCURY:

Both the soluble and insoluble preparations have their strong advocates. Of the insoluble the methyl salicylate; gray oil and calomel are the most used. The best soluble preparations are bichloride, oxycyanide of mercury and benzoate of mercury. This soluble group have much in their favor as they are less irritating, and have no accumulative action, but being inferior in therapeutic value, they require to be given 2 or 3 times a week, whereas the bichloride and salicylate are sufficient once a week. Both groups are administered by intramuscular injections. If the intramuscular treatment is adopted, be careful to avoid veins and nerves. Blood entering the syringe means venous puncture. The needle should be withdrawn and introduced again, to avoid the formation of thrombus. Mercury in the form of inunctions is very efficacious and I find it used extensively in most all large hospital and dispensary clinics. It is especially useful in infants during the treatment of congenital syphilis. Inunctions are looked upon, however, with great disfavor by patients in private practice.

Intravenous injections have grown rapidly in popularity since the discovery of arsphenamin by Ehrlich in 1910. The popularly known 606 (referring to the 606th experiment) contains 32% of arsenic.

The Neo-arsphenamin (the 914th experiment) only 2/3 as much.

The advantages of intravenous injections of both arsphenamin and mercury are, absence of pain, if technique is perfect; ease of administration; absorption and elimination is rapid and certain.

Arsphenamin is much more rapid in its therapeutic effect than mercury, by whatever method introduced, but because of this do not give up the mercury, as it must overlap and supplement the arseno-benzol treatment. The few objections to the use of subcutaneous and intravenous treatment can be overcome by care and skill on the part of the operator. The objections are pain, swelling and infiltration of the tissues in case of the slightest leakage. The pain is very severe, of a sharp, burning character, and often thrombosis of a venous segment appears. These infiltration swellings persist for days and weeks, producing great annoyance to the patient. The reaction may be severe enough to produce sloughing at the site of the injection. The technique of intravenous salvarsan should be well thought out, with attention to every minute detail. Many times the tourniquet is too tightly applied; this is true if the radial pulse is wanting; it is better to have the recipient in the recumbent position; alcohol on the skin is less apt than iodine to interfere with locating the line of the vein; use a 22 or 23 gauge needle with a short bevel, otherwise the tip may be in the vein sufficiently to allow the aspiration of blood, but on forcing in the arsphenamin a part will pass along the long bevelled needle and enter the tissues, producing a local tumor with pain and the other already enumerated symptoms. The psychology of the situation means much. Impress the patient with perfect confidence in your ability to carry out the treatment skilfully. This helps to allay nervousness, which if present, often defeats the success of the treatment.

I have often observed, splendid, full, easily accessible veins, suddenly collapse and disappear as the time approached for the insertion of the needle, this in very apprehensive patients and of course due to the nervous reflex action through the vaso-constrictors.

See that the temperature of the solution is at room temperature, neither too hot nor too cold, or the reaction will prove severe.

Be sure of a well neutralized solution if the State arsphenamin is used, or the reaction will be early and severe. Be not hasty in injecting the solution for fear of losing control and passing the needle, once in proper position, on further and through the walls of the opposite side. The too sudden depositing of the arsphenamin into the circulation will be sure to increase the reaction symptoms. Should you be conscious of sudden increased resistance to the progress of the plunger of the syringe, or with a local tumor forming, immediately aspirate all the fluid possible, rest the part and apply hot compresses. The intravenous treatment need not necessarily be confined to the arms. One may use any prominent vein, on the forearm wrist or backs of hands. The leg veins are more firm and harder to puncture, due to thicker walls, and there is greater danger of subcutaneous ecchymosis when the patient starts to walk. The normal symptoms of reaction following the introduction of arsphenamin are rise of Blood pressure; flushing of the face; metallic taste in the mouth, slight dyspnoea often, which soon passes away, and tingling of the extremities. This is followed most often by a period of nausea and vomiting, with a chill if reaction is severe.

Fever follows all injections, but it passes unnoticed in most cases. The range is from 99.5 to 104 in very severe cases.

To lessen reaction, see that the patient does not eat for at least 3 hours before the injection and very sparingly for the first meal following. Neo-arsphenamin is fast becoming the treatment of election because of its easier administration and because it is followed by few or none of these enumerated and troublesome reaction symptoms. It must be given more often and in greater series. In 1920 during a Congress on Venereal Disease at Washington, D. C., the necessity of longer and more intensive treatment was first advocated. A survey of the practice in all our large hospital centres reveals a tendency to a longer and a greater series of intravenous injections, at least 3 series of from 6 to 12 intravenous treatments followed by mercury intramuscularly in the same number of injections. This is the method during the first year and regardless of negative Wassermann reports. Much trouble is experienced from a few rare cases presenting symptoms of delayed reaction. Such a reaction does not obtain for from 2 days to one week. It is manifested by skin eruptions; gastro-intestinal disturbances; renal irritation; jaundice and cerebral manifestations. These cerebral manifestations are serious and responsible for more than half of all the deaths reported. The symptoms of this true encephalitis are, headache; vertigo; nausea and vomiting; muscle twitching, convulsions and coma. Death supervenes, due either to the toxic effect of the drug or to endotoxins released from the destroyed spirochetes, true cause not as yet definitely known. The percentage of deaths from these causes is relatively small and is due to impurities, poor technique or to improperly selected cases.

Iodine: This drug, in the form of potassium iodide, is useful, only in the tertiary stage. It is not germicidal, neither does it aid in rendering the Wassermann negative.

Silver: Silver-arsphenamin, a very recent addition to the syphilologists armamentarium, is useful only in cases which do not bear arsenic well: It is introduced intravenously in like manner.

It is proving to be a very potent spirocheticide.

Sulpharsphenamin is a new product of our American laboratories.

It is prepared from arsphenamin by means of formaldehyde and sodium sulphite. This I have used with pleasing results for the past 6 months. It is injected intramuscularly and adapted for children or those awkward cases with inaccessible veins.

Intramuscularly it is painless and it is followed by no reaction.

The supposition is that this product has superior powers of penetration. It is well tolerated, in consequence of which, large and impressive doses may be given. It may also be used intravenously with as little reaction as neosalvarsan. Following experimentation in the Army and at some of our large civil clinics, it is authoritatively stated that it is very efficient, if not the most efficient arsenical yet introduced for the treatment of neuro-syphilis. Though there have been volumes written on the treatment of neuro-syphilis since the Swift-Ellis method was presented to the profession in 1912, with more intensive treatment it is fast becoming a recognized and safe rule, not to cause the patient to be submitted to the annoyance, suffering and expense of a spinal fluid Bordet-Wassermann test where no clinical signs or symptoms of syphilis obtain and where the blood serum test is negative Wassermann in all dilutions. In late cases where the treatment has been erratic and inadequate, and in concealed cases, this test is still considered most essential.

The Swift-Ellis Test:

The technic, briefly, includes the intravenous injection of Salvarsan or Neosalvarsan. From a half hour to an hour after the intravenous injection, 50 cc. of blood are withdrawn from a vein in the arm by a venous puncture needle into centrifuge tubes. This is allowed to coagulate and is centrifugalized. The following day, 12 cc. of serum are withdrawn and diluted with 18 cc. of normal saline. The serum is then heated for thirty minutes at 56° C. in a water bath. By means of spinal puncture 15 cc. of spinal fluid are withdrawn and 30 cc. of the diluted serum, warmed to body temperature, are allowed to run by gravity into the subarachnoid space.

Fortunately in this section we see comparatively few cases of neuro-syphilis, manifested as general paralysis and tabes.

In our big centres the prevalence of these two ailments is appalling. Statistics of the N. Y. civil state hospitals for a 10 year period—1913 to 1923, show 10,060 treated cases of general paralysis alone, and of these 7,137 died. This is an average of over 1,000 treated cases a year.

In the successful diagnosis and treatment of syphilis every physician must cultivate an attitude of mind habitually suspicious of the presence of syphilis. In law the individual is innocent until proven guilty, but in medicine, the reverse must hold true.

The rules laid down, for handling the syphilitic group of cases, by Dr. Stokes, in the Mayo clinic, are very complete, concise and practical. They are in part as follows:

MAYO CLINIC RULES:

1. Individualize the patient. Remember that you are treating a human being not an abstraction.

2. Treat syphilis as a whole and not from the standpoint of some isolated aspect.

3. Insist upon the combined use of mercury and arsphenamin in early syphilis, the former for spirillicidal effects, the latter for the building and maintenance of the patient's resistance Emphasize that mercury does not control infectious lesions. Do not encourage rest intervals in the first year of an early case.

4. Taboo mercury by mouth in early cases and the use of a small number of injections of arsphenamin. If the patient can not be given at least two courses of six injections each by the physician who has charge of him, that physician should send him to some place or agency where he can receive at least this number of injections. Use mercury by inunction and intramuscularly.

5. Emphasize the fact that inadequate early treatment for syphilis, especially the inefficient administration of arsphenamin, is responsible for grave relapses and probably for a steady increase of incidence of neuro-syphilis. Insist therefore that early treatment shall be both intensive and prolonged. Most early syphilis is undertreated.

6. Discourage the merely symptomatic outlook on the results of treatment. In particular the disappearance of lesions and the reversal of the blood Wasserman reaction from positive to negative in the first few years of the infection have relatively little significance. Insist that no patient shall be placed upon prolonged rest period or allowed to lapse from observation and treatment in early syphilis until the spinal fluid has been examined and found normal.

7. Emphasize the need for treatment in all patients who show evidence of syphilis, even though that evidence be nothing but a positive blood Wassermann reaction; this provided the patient has never been adequately treated before.

8. In late cases of syphilis warn physicians of the danger of injudicious and overintensive treatment, and especially of the premature use of arsphenamin in patients with serious lesions in the heart, liver, and nervous system. Advise mercurial preparations.

9. Take every step possible both in early and late cases to maintain the general health and resistance of the patient and the integrity of the excretory mechanism.

10. Syphilis of the hereditary and congenital type should be treated with the same vigor and by essentially the same methods as late syphilis in adults.

11. Syphilitics should not marry within three years after infection, even when under treatment.

12. Many syphilitics have syphilitic families or contacts. Search out members of these families or the patient's other contacts and endeavor to bring them under treatment.

13. Syphilis must be treated as a whole. It is inexcusable to treat patients merely to control temporarily infectious manifestations. No agency should assume charge of a patient which is not prepared to meet every aspect of his case from start to finish and throughout the patient's life. Follow-up and observation are as essential as treatment.

14. Technical skill as well as trained judgment are essential to the treatment of syphilis, Emphasize how to do a thing as much as what to do.

PROGNOSIS:

We must, as a duty, discourage the popular belief that syphilis is curable. Many cases are arrested, but true cures are more rare than heretofore supposed. If a patient remains absolutely free from all symptoms for a 2 year period, following intensive treatment, we may then be relatively certain of a cure.

The length of life, based on Life Insurance statistics, is lessened 5 years by the invasion of syphilis. One out of every 7 of the syphilitics die as a result of their infection, from 20 to 30 years following their infection.

SOCIOLOGICAL ASPECTS:

When we find positive Wassermanns in from 15 to 20% of all patients tested in our American hospitals, it gives us some idea of this disease, as a true social evil.

In Berlin, prior to the war, 12% of the adult population had syphilis. In Paris, 15% was found; 14% of children in the dispensary service, at Glasgow, Scotland, had syphilis; 10% of the MALE population of America are believed to have syphilis. On examining 4,000 cases of skin disease, Dr. White found 12% of syphilis among the whites and 27% among the negroes. Fernald of Concord Reformatory recently told us that 70% of the prisoners practice sexual beastiality; 7% of the men have syphilis and 14% have gonorrhoea. At the Sherborn Reformatory, for women, 25% are found to be syphilitic.

It has been said that syphilis is essentially the problem of prostitution. To be more exact, we should say that it is the problem of clandestine prostitution.

To date legislation has proven a failure in curbing the spread of this scourge. The question the physician has to answer is a double one:

1st: How can clandestine prostitution be best kept within limits and made least harmful?

2nd: How can the public best be advised of the danger to itself from prostitution and be made to escape that danger?

It is my opinion that the public can be best safe-guarded through Education. Education too must start first with our own profession.

There must be increased courses with better instructors in our medical colleges and hospitals. Dr. Osler once suggested that every candidate for the degree of Doctor of Medicine should have a 3 months' special course in venereal work with a special examination upon the same. Post-graduate courses must be enlarged upon and made more attractive. The inadequate facilities in our dispensaries and wards for the care of venereal work must be made commensurate with the demand. It should be the bounden duty of each physician to carefully instruct his patients and see that they, in turn, instruct their children during the proper age, as to the major points for protection against this disease.

Education did wonders among our soldiers during the World War and furnished proof of what immense good can be accomplished along these lines.

In closing let me urge all present to interest themselves in all reasonable public health agenices and social hygiene clinics which are properly and judiciously managed.

In so doing there will be a great advance in the status of those suffering from syphilis; suffering will be minimized and the practical and economic side will be proven by the great saving of the taxpayers' money.

THE INCIDENCE OF HEREDITARY SYPHILIS IN A HOSPITAL COMMUNITY*

BY MARY WRIGHT, M. D., NEWTON CENTRE, MASS.

FROM time to time during the last ten years figures have been presented showing the frequency of hereditary syphilis in various large cities of the United States. No investigation of the incidence of this disease in Boston has as yet been published, and the present investigation was undertaken for the purpose of determining this incidence and comparing the figures obtained with those of other cities.

The material used in this study consists of the records of 1,220 consecutive admissions to the Children's Medical Service at the Massachusetts General Hospital over a period extending from September 5, 1917, to May 27, 1922. The records used are all those of white children, because during this period there were only ten colored admissions, a number too small to use for any conclusions, and consequently omitted.

The cases admitted to the Children's Medical Service are made up of patients sent to the ward from the Out-Patient Department, those entering directly through the Emergency Ward, and those sent to the hospital by outside physicians, either local or at a considerable distance from Boston, not infrequently from other states. This last group is largely made up of cases sent to the hospital for study and diagnosis. The cases sent to the ward from the Out-Patient Department do not include any known syphilitics without other disease requiring hospital treatment, because such patients would be in charge of the South Medical Department which cares for all cases of syphilis. Consequently this study is based largely upon a supposedly non-syphilitic hospital population.

The records were examined in regard to family and personal history, physical findings, and the Wassermann reaction on the blood. In the cases where post-mortem evidence was obtained, this has also been utilized. The history and physical examination were reasonably complete in the very great majority of cases. The Wassermann test was performed† in only 749 of the 1220 cases, i. e. in 61.3%.

The result of this study of the records is shown in the following figures.

	Pos. Wass.	Neg. Wass.	No Wass.	Total
Not syphilis	16	696	468	1180
Syphilis	16	12	3	31
Syphilis ?	2	7	0	9
	34	715	471	1220

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*From the Children's Medical Department, Massachusetts General Hospital.

†The Wassermann technic during the first part of the period studied included the use of guinea pig complement and rabbit-sheep amboceptor, which were changed in the fall of 1918 to human complement and amboceptor. The antigen used was cholesterinized alcoholic extract of human heart.

"Strongly positive" indicates complete fixation.

There were 16 cases not considered to be syphilis in which the Wassermann reaction was positive to some degree. These were grouped as shown below.

		Later neg.	Died in hosp.	Untraced
Strongly pos.	5	3	2	0
Moderately pos.	3	1	1	1
Weakly pos.	7	3	1	3
Slightly pos.	1	0	0	1
	16	7	4	5

Of these 16 cases, 7 were later found to have negative Wassermann reactions. The only remaining strongly positive cases died* in the hospital and autopsies were not obtained, but there was no clinical evidence of syphilitic infection and the histories were negative. As there was no real proof of syphilis in the remainder of the group†, it has seemed correct to disregard the report on the blood entirely.

The records in the cases which have been classed as syphilis and syphilis ? are summarized in the following tables. In all these cases, where the Wassermann is referred to as positive, "strongly positive" is meant. For the sake of brevity, family history is not noted in the tables when it was not used in making the diagnosis, either because there was sufficient evidence without it or because it was negative.

Syphilis	
Pos. Wass. with clin. signs	10
Pos. Wass. with sl. clin. signs and assoc. disease	2
Pos. Wass. with sl. or no clin. signs—treated cases	3
Pos. Wass. with no clin. signs	1
Neg. Wass. with clin. signs	6
Neg. Wass. with sl. clin. signs or def. F. H.—treated cases	5
Neg. Wass. with no clin. signs—post-mortem evidence	1
No. Wass.—treated cases	3
	31

The 10 cases with a positive reaction and definite clinical signs need no comment. In the next two cases with only slight clinical signs of lues, the diagnosis was made more certain by an associated condition, paroxysmal hemoglobinuria in one instance and spastic paraplegia in the other. Among the positive Wassermann reactions were three treated cases which showed little or nothing clinically, and one untreated case with no clinical signs which was referred to the Out-Patient Department for treatment. This last child, age 21 months, was the only case in which a definite diagnosis of syphilis was based on the Wassermann reaction alone.

Among the cases with a negative Wassermann reaction, the six with definite clinical signs and the five treated cases call for no discussion. In this group, however, is one very interesting case, an infant of 3 months, with a fairly typical history of pyloric stenosis, and nothing in the family history, physical findings or blood to suggest syphilis, who at autopsy showed syphilitic pancreatitis.

There were, in addition to the above, three known syphilitic children who had received treatment and whose blood was not tested while in the hospital.

Syphilis ?	
Pos. Wass. with no clin. signs, but heart disease	1
Pos. Wass. with no clin. signs, but epileptic attacks	1
Neg. Wass. with def. clin. signs and pos. X-ray report	1
Neg. Wass. with def. clin. signs	1
Neg. Wass. with somewhat inconclusive evidence	5
	9

The first patient in this group had a double mitral lesion, and there was some difference of opinion as to whether there was also tricuspid disease. With this she had a liver palpable 4 cm. below the costal margin, but the skin and sclerae were clear and no jaundice was apparently noted at any time. Her positive Wassermann caused a diagnosis of syphilis ? to be made, but she was removed against advice before a consultation was obtained.

The second patient showed nothing at all suspicious on physical examination or in his family history, but he suffered from epileptic attacks which, coupled with his positive Wassermann reaction, made a diagnosis of at least syphilis ? appear reasonable.

The next case, a child of 13 months, had extensive bony changes which the X-ray Department considered syphilitic, but the von Pirquet test was positive, making the diagnosis of syphilis not without question in the absence of a positive Wassermann.

One 12 year old girl had notched incisors and extensive bony changes, but she and both her parents had negative Wassermann reactions. A diagnosis of adolescent rickets ? was also made in this puzzling case.

The remaining five patients were all considered sufficiently suspicious to call for a provisional diagnosis of syphilis. In one case, age 4 months, the findings of general glandular enlargement and thin hair were referred to as "consistent with lues"; two other cases, one 10 weeks old with an old family history and glandular enlargement, the other 9 years old with glandular enlargement and notched incisors, were pronounced "potentially syphilitic"; in another, 1 year old with glandular enlargement, an ulcer on the labia and pigmentation of the buttocks, this diagnosis was considered "possible"; and in the fifth, 3 months old, the history of 4 miscarriages and 3 dead children was "suggestive."

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*These two cases with strongly positive Wassermann reactions died from influenza and bronchopneumonia, a condition in which others have found positives; one other fatal case had tuberculous meningitis, tuberculosis being a well recognized cause of complement fixation.

Of the five untraced cases, all of whose histories were completely negative, three had diseases which are known to give false positives, viz., typhoid fever, catarrhal jaundice, and quartan malaria.

†The only possible exception to this statement was a three-months-old infant with a weakly positive reaction, which might have had some significance at that age when accompanied by enlargement of both epitrochlear nodes without demonstrable local cause. There was nothing else in the least suspicious about the child.

It may be well to state that in addition to these cases which were considered sufficiently definite to call for some recognition of the suspicion entertained, there were 23 other cases in which there was suspicion of lues at some time, but it was not considered sufficiently proved to appear in the diagnosis.

There were, therefore, among the 1220 cases studied 31 cases of syphilis and 9 cases which were presumably syphilis.

Syphilis	31	2.54%
Syphilis ?	9	0.73%
	40	3.27%

The incidence of syphilis was found to be 3.27% in the whole number of patients. When this is computed according to the age of the patients the incidence varies widely.

	Under 7 mos.		7-13 mos.		Under 13 mos.		Over 13 mos.	
Total	257		205		462		784	
Syphilis	15	5.83%	12	5.85%	27	5.84%	13	1.71%

No difference was found between the frequency of syphilis in the infants under 7 months of age and the frequency in those from 7 to 13 months. The frequency in infants under 13 months is more than three times as great as that in children over 13 months.

These figures on the incidence of hereditary syphilis correspond closely to those found in other cities of the United States. Jeans and Butler[1] in 1914 found syphilis in 2% of 5185 new patients in the Out-Patient Department of the St. Louis Children's Hospital. Whitney[2] in 1915 found 2.9% in 890 Out-Patient Department children in the University of California Hospital. Churchill and Austin[3] in 1916 reported an incidence of 3.3% in 695 patients in the Children's Memorial Hospital in Chicago. Holt[4] in 1913 reported a somewhat higher figure in New York, 11 positive Wassermann tests in 178 hospital children, or 6%; but these cases were selected from 1800 hospital admissions and included nearly every child in whom even a slight suspicion of syphilis existed, aside from the 34 cases of hereditary syphilis which were admitted for treatment, of whom 31 were tested and 30 gave a positive Wassermann reaction.

Malzberg[5], of the United States Interdepartmental Social Hygiene Board, in 1919 made the statement that not a single estimate of the prevalence of syphilis in the general population can stand the test of examination, because no existing estimate truly represents a cross section of the population. This has been recognized by Jeans[6] [7] [8] in a number of different articles. In 1919 he computed[8] from the literature that 5-6% of poorer class infants have syphilis and 2-3% of poorer class older children. The results of the present study correspond closely to these figures, being 5.84% and 1.71% for the two age groups below and above 13 months.

Malzberg's criticism is obviously applicable to this investigation, which has been limited to the poorer class, to white children, and further limited as explained above to a hospital population for the most part supposedly non-syphilitic. Actually, among the 40 cases 14, or 35%, were admitted because of symptoms referable directly or indirectly to their syphilis, leaving 65% of the cases in which this was discovered more or less incidentally.

Considering this last factor, it is rather surprising that these figures should run as high as most of the other figures in the literature. Boston is a seaport city, and syphilis is expected to be more prevalent in seaports, but San Francisco is likewise a port and has a somewhat lower figure than Boston.

It is of interest in this connection to note that Wirz (quoted by Jeans[8]) found 3% positive Wassermann reactions on 200 unsuspected Munich school children who had negative histories and physical examinations. Wirz quotes Pfaundler to the effect that 43.6% of children born living of syphilitic parents reach the age of ten years, while normally the figure is 69%, so that a 3% incidence at school age corresponds to 5% among the newborn.

The question naturally arises whether the Boston figures here presented are high because of being too inclusive. It is true that one sort of evidence has not always been verified by other kinds, as, for example, in the case of the infant in which nothing except post-mortem evidence was found, while at the same time the series included three cases in which there was perfectly satisfactory ante-mortem evidence which autopsy failed to confirm. Nevertheless, according to the data presented the inclusion of all the 40 cases has seemed justified, because any true estimate should include the latent cases.

Even if all those cases in which the diagnosis of syphilis was at all questionable are deducted, there remain 31 cases of undoubted syphilis, which means an incidence of 2.54% as the lowest possible figure to be obtained from this series of cases. Presumably some of the 9 cases so discarded were true syphilis, so that the final figure must lie somewhere between 2.54% and 3.27%, with the evidence in favor of a figure considerably higher than this lower limit.

SUMMARY

The records of 1220 consecutive white admissions to the Children's Medical Service of the Massachusetts General Hospital have been studied to determine the incidence of hereditary syphilis in these cases which for the most part were supposedly non-syphilitic. The records were examined for history, physical findings, Wassermann reactions, and, where they existed post-mortem findings. The results of this study are as follows:

1. A diagnosis of syphilis was warranted by the evidence in 31 cases or 2.54%.
2. A provisional diagnosis of syphilis was warranted by the evidence in 9 other cases or 0.73%, making the total 40 cases or 3.27%.
3. Based on these 40 cases, the incidence of syphilis in children under 13 months was found to be 5.84%, while the incidence in children over 13 months was found to be 1.71%.
4. The figures obtained in this definitely limited hospital population are in close agreement with the figures which Jeans computed from the literature in 1919, and do not differ materially from those reported from St. Louis, San Francisco and Chicago.

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REPORT OF CASE OF GRANULOMA INGUINALE

BY T. P. MURDOCK, M. D., MERIDEN, CONN.

Due to the rarity of this condition in this locality, and due to the fact that this patient is a native of Connecticut, and has not been to the tropics, or in the south, I think it advisable to report this case.

Dr. John Lane[1] saw a typical case of Granuloma Inguinale at the New Haven hospital about one year ago. As far as I have been able to determine, these are the only two cases reported in Connecticut.

Much has been written about this condition in the past few years. Probably the first case recorded was by Macleod in India in 1882. This was quoted by Walker[2] in 1918.

Practically all of the cases reported, with the exception of those cases reported by Campbell[3] in New York State, have been reported in the southern part of the United States, or in the tropics.

ETIOLOGY

Many causative agents have been ascribed to this condition. However, since Donovan's[4] description of the causative factor in 1905, practically all observers are agreed on the importance which this micro-organism plays in the production of this disease.

The organism as described by Donovan is an encapsulated gram negative coccoid, and diplococcibacillus. It has been reported that pure cultures of the organism have been obtained. In the case reported here, the author was unable to obtain a pure culture.

Gage[5] believes that, in the majority of cases at least, it is a primary infection of the genitals, transmitted through sexual intercourse; however, he believes that the condition may be complicated by syphilis, or chancroid.

Campbell[6], on the other hand, lays great stress on the importance of previous infection, such as bubo, or trauma, such as circumcision.

Lynch[7] believes that frequently the condition is associated with syphilis, or the patient gives a history of syphilis in which a serologic cure has been established.

The case here reported is apparently of the so-called pure type due to the absence of associated conditions or traumatism.

DIAGNOSIS

The diagnosis of this condition is established by finding Donovan bodies in the smear. Two methods are advocated for obtaining smears: One the removal of a small section, and squeezing the tissue fluid, making smears from this fluid. The other, thoroughly cleansing the ulcerations with ether; after the bleeding has been controlled, removing, with a dull curette, some of the scrapings, from which a smear is made. The latter was the method used in the case here reported. Romanowsky's stain was used with excellent results.

The differential diagnosis of this condition presents considerable difficulty. The conditions with which granuloma inguinale are likely to be confused are syphilis, tuberculous ulcer, cancer, and chancroid.

A blood Wassermann should be done on all these cases, although, as Lynch[8] has pointed out, it is not uncommon for syphilis to be associated with this condition.

Patients with chronic indurated ulcerations in this region should be given the benefit of repeated smear examinations. The finding of Donovan bodies in the smear establishes the diagnosis.

TREATMENT

In the case here reported, no local application of any kind was made. This was purposely done to be able accurately to determine the value of tartar emetic intravenously.

The method used was that outlined by Campbell[9], and later by Gage[10]. One gm. of finely powdered tartar emetic was added to 100 c.c. of freshly distilled water. The solution was then thoroughly boiled. Intravenous injections were used every other day, beginning with 2 c.c. of tartar emetic solution diluted with 8 c.c. of freshly distilled water. With each succeeding administration, 1 c.c. of tartar emetic was added, and 1 c.c. of distilled water subtracted. All told, eighteen injections were given.

Following the third injection, there was a noticeable decrease in the secretion, followed by rapid epidermization. The lesions were entirely healed following the last injection. The patient has been advised to take monthly injections of tartar emetic for one year.

Great care should be used in the administration of tartar emetic intravenously. Frequent examinations of the urine during treatment is advised.

The appearance of albumin and casts in the urine during treatment should be a warning sign to temporarily discontinue treatment.

Infiltration of the drug in the tissues around the vein is extremely painful, and likely to cause sloughing.

A cure has apparently been established in this case.

REPORT OF CASE

F. M. Age 28 yrs. Mechanic. The patient had influenza in 1919, otherwise the past history was negative, or unimportant.

I saw the patient in consultation on March 26, 1924. He was exposed (by sexual intercourse) to infection one month before onset of present trouble. The history obtained was that the lesion manifested itself three weeks before as an elevated papule, with subsequent ulceration on the shaft of the penis. Six days before examination, another papule, with subsequent ulceration, appeared in the right groin.

The general physical examination was negative. The blood Wassermann was negative.

The lesions occurred on the shaft of the penis and in the right groin. The former was serpiginous in type, its longest measurement being 4½ cm, its widest 2 cm. The latter was annular, and its diameter 2 cm.

The lesions were elevated, and hard to the touch. The ulcerations were not deep, but were typically granulomatous. The edges presented an elevated, rolled out appearance. There was a slight seropurulent discharge coming from both lesions. There was a marked odor from the lesions. The penis also presented the appearance of a mild elephantiasis. The lymphatic glands in the groin were not enlarged. Smears obtained from the scrapings of the lesions showed Donovan bodies.

The patient was given tartar emetic intravenously. In all, to date, he has received eighteen intravenous injections of tartar emetic.

CONCLUSIONS

1. A case of granuloma inguinale is here reported occurring in the northern part of the United States.
2. The organism described by Donovan in 1905 in all probability is the causative factor of the disease.
3. Tartar emetic appears to be specific, particularly in the so-called pure or uncomplicated cases.

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TRANSPLANTATION OF THE TENSOR FASCIAE LATAE—CASE REPORT

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THIS case is reported rather because of the unusual lesion necessitating such an operation than because of the nature of the operation itself. The procedure was devised by Dr. Arthur T. Legg for the relief of impairment or loss of abduction at the hip in cases of paralysis of the gluteus medius muscle. The great majority of such cases have been performed upon children with anterior poliomyelitis. The case under report is that of a young adult who lost the power of the gluteus medius by reason of osteomyelitis of the great trochanter.

In order to appreciate the reason for such an operation a brief description of the action of these two muscles is of importance. The gluteus medius arises from the outer surface of the ilium, between the superior and middle gluteal lines. Its fibres pass downward, converging to a tendon which is inserted into the lateral surface of the great trochanter of the femur near its summit. It is supplied by the superior gluteal nerve from the fourth and fifth lumbar and first sacral nerves. Its action is that of an abductor, by means of all its fibres, and an inward rotator, through the anterior fibres which run backward as well as downward. The tensor fasciae latae arises from the crest of the ilium anterior to the gluteus medius and just back of the anterior superior spine and passes downward and backward into the ilio-tibial band of the fascia lata. Its nerve supply is identical with that of the foregoing muscle through the inferior branch which enters the muscle at its widest point, about two inches above the tendonous portion of the muscle. It is an inward rotator as well as a flexor of the thigh. It can be readily seen by its action that its flexor powers are of secondary importance to any individual and can be sacrificed.

Following is a report of a case in which the insertion of the tensor fasciae latae was transplanted with excellent results:

A. E. K. Age, 29. Developed osteomyelitis of the great trochanter of the left femur while in service during the World War and was subsequently operated twice for drainage of this area. He was admitted to the hospital in August, 1923, for a third operation to relieve the soreness and constant discharge from a sinus in this region. At that time he had little power of abduction and Xrays revealed a complete absence of the great trochanter without any definite bone pathology. At the time of operation it was noted that the gluteus medius was retracted and markedly atrophied, its insertion being free. The bone cavity was carefully curetted, cleaned, and packed with sterile gauze. This wound healed readily and he was discharged in October, 1923, to return in February, 1924, for a transplantation, if healed.

The wound remained healed and he returned to the hospital in February. On examination he was found to have a heavy indurated scar over the region of the trochanter which prevented any operation on the gluteus medius. He walked with the characteristic swaying motion of one not having any power of abduction. There was a large muscle hernia posterior to the area in which the operation for transplantation was to be performed. On February 6th he was given ether and the following operation was performed after the Legg technique: An incision was made from the anterior superior spine downward and backward over the trochanter, and then downward over the shaft of the femur for a distance of four inches. The old scars were carefully avoided. At the lower end of the incision a backward curve was made in order to expose the muscle hernia. The skin and subcutaneous fat was reflected forward exposing the fascia lata and backward to make a suitable approach to the rent in the fascia. This rent was closed with chromic catgut after the edges had been developed. The tensor fasciae latae stood out plainly from the fascia lata and was incised along its borders from the anterior superior spine downward to the tendon, across this tendon, and upward to the scar tissue over the trochanter. It was elevated from its bed to the point where the nerve and blood vessels enter the belly of the muscle posteriorly. The fibres of the vastus externus were next divided and the shaft of the femur exposed. A periosteal flap was turned down at this site and, with a 3/8 inch gouge, a piece of bone was reflected downward opening into the cortex. A number 18 silk suture fastened the tendon well into the cavity thus formed and the rent in the fascia was closed over the area after restoring the vastus externus to its bed. The wound was closed in layers and a plaster-of-Paris spica was applied with the leg in 20° of abduction. Following the operation there appeared at the wound a recurrent patch of erysipelas which soon quieted down and in three weeks the upper portion of the spica was removed. In five weeks the plaster was removed entirely and physiotherapy instituted. His convalescence has been delayed somewhat by a synovitis of the left knee.

At present he is walking around very well and has lost a great deal of the ungainly swaying motion. On examination he has lost none of power of inward rotation and is improving rapidly each day in the power of abduction. At the present writing he has approximately 10° of voluntary abduction. There has been no exacerbation of the osteomyelitis and Xrays taken two weeks ago reveal a marked periosteal and bone proliferation about the site of the tendon attachment.

◆

CLOSING EXERCISES OF PRENDERGAST SUMMER CAMP

The final "party" at the Prendergast Summer Camp of the Boston Tuberculosis Association took place on Friday afternoon August 29, many of the children going home at the close of the day, with the official termination of the camp on Tuesday, September 2. This it should be understood is the summer camp, the Prendergast Preventorium continuing as before with the regular permanent plant of the institution and the dormitory for twenty-one little girls.

For the party, some three hundred persons, largely friends and relatives of the children who were in the summer camp, had assembled, with a number of the out-patient department nurses and interested physicians. The exercises were exceedingly simple, and included selections by the band of the Boy Scouts of the Jewish Children's Home on Canterbury Street, furnished through the kindness of Dr. L. B. Wolfenson; a short address of welcome with some statistics by Dr. George S. Hill, chairman of the Prendergast Camp Committee; a short story of the purposes of the Camp and its results by Dr. Eli Friedman, camp physician; and exercises by the children themselves including singing, a milk play and calisthenics on the recently developed playground.

Dr. Hill announced that the Camp (with the Preventorium) had included 136 children, 62 girls and 74 boys, and no child in the company had failed to make a gain in weight, varying from a few ounces to some 11 pounds. The children represented all sections of the city, and were pretty well divided in point of nationality, the following being the tally; 55 Irish, 23 American, 21 Jewish, 11 Italian, 8 Syrian, 6 French, 5 Negro and 7 of other nationalities.

Dr. Hill, taking advantage of the presence of so many parents, emphasized the duty of the parents. The Preventorium and the Summer Camp have tried to ward off disease in the children, and the families of the children must help in the home.

The Association has tried to teach the children some of the principles of healthful living and it is incumbent on the parents to take heed to this. The real work of the rescue of children from potential disease has been started, the children now realize the value of good food, rest, proper exercise and fresh air or ventilation, it is to be termed in the home, and they will help the parents in the good work, if the latter will take heed. The children will be asked to come occasionally to a clinic for examination, and the parents should see that this is carried out. It is the duty of the parents or guardians to coöperate with the Association and its workers.

GIANT SPRAY AT PRENDERGAST PREVENTORIUM

In his introductory remarks Dr. Friedman emphasized that the camp of the Boston Tuberculosis Association is different from the ordinary vacation camps which oftentimes have very little real supervision of health. The latter give the children a change of scene, a life more or less in the open air, and unquestionably are of advantage to the children, but an excellent opportunity is lost, if supervision of health and more or less of health teachings do not enter into the program.

The Prendergast Preventorium and the Summer Camp are fundamentally different from the ordinary camp in that they take only children with a handicap. One of the requirements for registration includes underweight (7%), x-ray evidence or the suggestion of infection in the tracheo-bronchial glands, and another is the existence of an adult consumptive in the family. The object of the treatment is to stop any infection from becoming active, and in doing this to teach the children how to live properly, how to make up their underweight and how to care for the details of food, exercise and ventilation.

It is to be hoped that the summer camp has been successful in these matters. The children have had the open air life, the beneficial effects of sunshine on their limbs and bodies, and have gained on an average three pounds in the ten weeks of camp life. They have learned that there should be a regular eating time and a regular sleeping time, and this knowledge they will make the more valuable by carrying it into the home.

GIANT SPRAY AT PRENDERGAST PREVENTORIUM

In its adaptation of the existing plant for the vastly increased demands of the Summer Camp, the Boston Tuberculosis Association was obliged to solve a number of problems which the smaller group in the Preventorium did not present. The sleeping and eating demands can always be met by tents, and any increase in needs for domestic service means increase in personnel or the installation of mechanical means. There are a goodly number of devices like laundry equipment, dishwashers and vegetable peelers, that come to the aid of those handling the larger numbers. At Prendergast the old system of oil stoves gave way to gas ranges, when city gas was brought to the grounds, and the connection at the same time of the camp with the city water service solved some of the problems that the old well did not. With the introduction of city water came a number of opportunities for cleanliness scattered about the grounds, bubble fountains for drinking and the giant spray. As a means of fire protection the city has installed a regulation hydrant within fifty feet of the main building, and here, by a happy thought, is located the big shower bath that is adequate to the needs in point of cleanliness of a much larger camp. Connected with the hydrant the great spray sends its showers over an area of sixty feet by twenty, and this space is floored with clean little pebbles. The normal clothing of the little boys and girls at the Summer Camp being bathing suits, there has been no need of any preparation for the bath. The bell is rung, and this happens two or three times a day, the spray turned on and the children dash into the cooling, cleansing jets with earnestness and zest. And in this is the solution of a serious question, how to keep a hundred children, who are out of doors all the time, in healthful, cleanly condition.

BOOK REVIEWS

National Health Series. 18 mo. averaging about 70 pages. Flexible Covers. Edited by the National Health Council. Funk & Wagnalls Company, Publishers. 1924.

Man and the Microbe. How Communicable Diseases are Controlled. By Charles Edward Amory Winslow, A. P. H. A., Professor of Public Health, Yale School of Medicine.

Doctor Winslow presents his subject in a logical and interesting way, covering in a simple narrative of some twenty thousand words the development of bacteriology, many present day bacteriological hypotheses, and in conclusion touches on the artificial production of immunity.

Personal Hygiene and Rules of Right Living. By Allan J. McLaughlin, Surgeon United States Public Health Service; Assisted by James A. Tobey, M. S., Fellow A. P. H. A.

This little book is a veritable mine of practical suggestions for right living and health. The reader whoever he may be will find such suggestions presented so that he can understand and apply them. The author's style is forceful and intended to impress the reader with important truths which the author tries to emphasize, but here and there the language shows haste and carelessness which should have been remedied in the proof.

Cancer, Nature, Diagnosis and Cure. By Francis Carterwood, M. D., Director, Institute of Cancer Research, Columbia University.

A treatise of 20,000 words on cancer and intended for popular education must necessarily resemble other similar productions which have recently made their appearance. In this instance however the author has been particularly successful in presenting in a concise interesting way the following named sub-divisions of his subject. Statistics as to the probable occurrence o fcancer; the nature of cancer; the present status of the experimental study of cancer; the varieties and symptoms of cancer; treatment of cancer; Quacks; the prevention of cancer.

High Blood Pressure—Its variations and control. A Manual for Practitioners. By J. F. Halls Dally. William Wood & Company, New York, 1924.

This small book of 139 pages by Dr. Dally gives a rather simple but complete account of the important phases of the blood pressure problem. In the first few chapters are discussed the various types of apparatus used in making blood pressure determinations, considering the possible errors and advantages that exist. There then follows a discussion on the general mechanism of the blood pressure, taking up the physiological considerations involved. The latter chapters deal mainly with the question of hypertension; its relation to arterial, renal and cardiac disease and other clinical disorders. There is also a chapter on the control of hypertension and one on the relation of blood pressure to insurance work.

The book is interesting reading and the subject matter is expressed in a simple and easy style. There are some points concerning which differences of opinion exist, but these differences the author has generally indicated. Some authorities in this country are more impressed with the intimate relation between small blood vessel sclerosis and hypertension than is the author. They also would, in general, attach less importance to the beneficial influence on hypertension of intestinal antiseptics, mechano- and electrotherapy, vaso-dilators and other medication. However, the clinical features discussed in this volume are certainly of interest to the practitioner for whom it was primarily intended, for it takes a very sane attitude to the practical problems involved.

S. A. LEVINE

The Cure of Pulmonary Tuberculosis by Rest and Exercise. By HUGH M. KINGHORN, M. D. Published by Richard G. Badger, The Gorham Press, Boston.

Dr. Kinghorn is perhaps the most ardent advocate of rest that we have in this country. His book of 170 pages is the work of an enthusiast who believes most earnestly in the great value of rest and who has little or no use for exercise.

The first three chapters are devoted to Hermann Brehmer, Peter Dettweiler, and Dr. Trudeau respectively. He devotes another chapter to the value of rest in diseases other than tuberculosis. He refers enthusiastically to the work of Dr. Joseph H. Pratt of Boston and gives the details of rest treeatment as Dr. Pratt has carried this on in the Emmanuel Church Tuberculosis Class. He falls into the same error in this chapter which he has made in his writings before and which Dr. Pratt has likewise done by making the statement that Dr. Pratt's cases were not selected ones. Anyone who has worked in the tuberculosis clinics in Boston and who has been particularly connected with the Social Service Departments who have referred or endeavored to refer cases to Dr. Pratt's class knows that from one point of view at least Dr. Pratt's cases are selected with the greatest of care. While it is true that Dr. Pratt does not stipulate that his patients should be incipient, moderately advanced or in the favorable stages he does stipulate that his patients *must be able* to stay in bed for long periods of time, six months or a year at least. How absolutely impossible it is to demand this of the great number of patients coming from the crowded districts of Boston is only too well known by those of us familiar with conditions in this city. For the great number of such patients to be cared for in their own homes in bed for a period of six months or more is an utter impossibility and for such patients the hospital or the sanatorium is the only possible solution.

Dr. Kinghorn likewise draws definite conclusions based on the 200 or more patients of which Dr. Pratt has accurate records. No conclusions based on such a small number as this can be called very reliable.

Dr. Kinghorn devotes a chapter to the work of Dr. Marcus Paterson and that of Sir Almroth Wright. It is perfectly evident from what he says that he does not have much faith in the methods of either of these two physicians.

The book is interesting as the works of enthusiasts always are. It is not conclusive, however.

J. B. H.

Toxicology or The Effects of Poisons. Underhill, F. P.

This small work has the merit of conciseness and, for the most part, of accuracy, but the conciseness almost brings it into the class of quizz compends. It will, however, probably prove useful to those who desire a brief and in the main modern review of nearly all of the important (and some unimportant) poisons. The references to original sources are fairly numerous but of unequal value; on the whole they are, apparently, selected from the standpoint of placing the reader in touch with original work on the pharmacological action of the poisons rather than of enabling him to obtain a clear picture of clinical cases of poisoning. In fact, there is not much in the book which is not contained in standard works on pharmacology or which can not be, and usually is, introduced into modern medical school courses on this subject; hence, there is little to recommend it as a medical school textbook. On the other hand a physician confronted with a case of poisoning would find the discussion of symptoms too brief and often too indefinite to be of much value. The treatment of some subjects of much present day interest, such as the toxicity of the local anesthetics, is conspicuously inadequate as is also that of common poisonous plants; poison ivy does not seem to be mentioned and although the recent work of Ford on poisonous mushrooms is quoted no reference is made to the work of Dale (published ten years ago) and of Böhm (published 29 years ago) showing that muscarin, that is the "muscarin of poisonous mushrooms," does not have a "nicotine and curare effect" and this old error is restated; a discarded formula for muscarin is also given.

While the book represents in some respects an advance over some of the older works on the subject, there seems to be little need of such a work for those who have received or are receiving a modern course in pharmacology.

Problems in Tuberculosis. By Sir James Kingston Fowler. Published by Henry Frowde and Hodder & Stoughton, London.

This little book of 63 pages by Sir James Fowler is intensely interesting and stimulating not only to the physician interested in tuberculosis but any workers in the field of preventive medicine. Dr. Fowler has a very distinct style and the book is full of his own personality. He makes many striking statements with some of which we cannot agree. It is refreshing, however, to hear from a man who has definite opinions of his own and who is willing to state them clearly and frankly. One cannot give the general atmosphere of this book better than by quoting sentences taken almost at random.

"The most active center of infection is undoubtedly the home; therefore, the energies of the medical officers * * * should be chiefly directed to the examination of 'contacts.' "

"At present among the working classes there are no early cases of tuberculosis."

"How much easier it would be if every case began with a severe hemorrhage from the lungs."

"The 'early cases' so much spoken of exist in the imagination only and are not seen even in private practice, apart from those which begin with hemoptysis."

"The working man has no time to be an early case of pulmonary tuberculosis."

He comments with vigor on the common custom of general hospitals in refusing to admit cases of tuberculosis to their wards for observation, diagnosis and treatment. He notes with enthusiasm that at several general hospitals in London there are tuberculosis departments. He likewise refers sarcastically to the roentgenologists as follows:

"No report of an x-ray examination of the chest is complete without some mention of fibrosis even though the patient be a child. Has anyone seen a report in these words: 'This chest is normal.' "

Again,—"Before any member of the medical profession decides to enter the Tuberculosis Service I recommend him to take a long walk and think it over."

His chapter on tuberculosis dispensaries is short, occupying two pages, but it is nevertheless extremely complete and the same applies to the chapter on the sanatorium. He tells that "the primary object of sanatorium treatment is to fit the patient for the occupation in which he was engaged before the onset of his illness." To this general statement he makes certain important reservations.

As a method of improving our modern sanatoria he advises among other things the elimination from the sanatoria of all patients who are not really suffering from pulmonary tuberculosis.

He believes that the sanatorium should be expanded so as to include an industrial department in which vocational training can be carried on. This whole scheme including a sanatorium, hospital for sick cases and the industries department he calls the settlement. His comments on this in detail are of great interest and value.

I would recommend this book highly.

J. B. H.

ACKNOWLEDGMENT OF BOOKS FOR REVIEW

Fertility and Sterility in Human Marriages. By Edward Reynolds and Donald Macomber. Phila. and London: W. B. Saunders Co. 285 pages. Price, $5.00.

Eat Your Way to Health. By Robert Hugh Rose. New York: Funk and Wagnalls. 230 pages. Price, $2.00.

Mind and Medicine. By Thomas W. Salmon. New York: Columbia Univ. Press. 33 pages.

A Memoir of William and John Hunter. By George C. Peachey. Plymouth, England: William Brandon and Son, Ltd. 313 pages.

Studies from the Rockefeller Institute for Medical Research. Volume XLIX. New York: Privately Published. 603 pages. Price, $2.00.

Endemic Encephalitis. By Arthur J. Hall. New York: William Wood & Co. 229 pages. Price, $3.75.

Toxicology or the Effects of Poisons. By Frank P. Underhill. Phila.: P. Blakiston's Son & Co. 292 pages. Price, $2.25.

Amputations. By Norman Thomas Kirk. Chicago: W. B. Conkey Co. 110 pages.

Cancer: How It Is Caused; How It Can Be Prevented. By J. Ellis Barker. New York: E. P. Dutton & Co. 478 pages. Price, $3.00.

The Medical Department of the United States Army in the World War. Vol. XI. Surgery—Part 2. Published by War Dept., 1924. Washington: Government Printing Office. 827 pages.

Diabetes and Its Treatment by Insulin and Diet. By Orlando H. Petty. Phila.: F. A. Davis Co. 111 pages. Price, $1.50.

Goiter: Non-Surgical Types and Treatment. By Israel Bram. New York: The MacMillan Co. 479 pages. Price, $6.50.

Handbook of Skin Diseases. By Frederick Gardiner. New York: William Wood & Co. 248 pages. Price, $3.50.

Wheler's Handbook of Medicine. By William R. Jack. New York: William Wood & Co. 629 pages. Price, $4.00.

Manual of the Diseases of the Eye. By Charles H. May. New York: William Wood & Co. 445 pages. Price, $4.00.

An Outline of Endocrinology. W. M. Crofton. New York: William Wood & Co. 126 pages. Price, $2.25.

Case Records
# of the
Massachusetts General Hospital

ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN WEEKLY CLINICO-PATHOLOGICAL EXERCISES

EDITED BY
RICHARD C. CABOT, M.D., AND HUGH CABOT, M.D.
F. M. PAINTER, A.B., ASSISTANT EDITOR

CASE 10381

A Scotch housewife of forty-eight entered June 20 complaining of pain in the abdomen and a choking sensation high in the chest.

F. H. Good.

P. H. She had measles, whooping cough, scarlet fever and typhoid fever when a child, but said she had always been strong and healthy. She had had headaches and occasoional vertigo and faintness. She had one miscarriage five years after the birth of the last of three living children. She was never a hearty eater, sometimes not eating one meal a day, but nibbling all day long. Her bowels required cathartics. Her first catamenia was at eighteen years. During the last few years it had been very painful.

P. I. For two weeks she had felt weak. Food had a peculiar taste, and she ate practically nothing. She was troubled with gas causing a choking sensation high in her chest. June 12 her husband noticed that her skin was growing darker. It had continued to grow steadily darker. June 15 there was a definite change for the worse, the skin became more markedly yellow, and she was tired and drowsy. She had been in bed since this time. The day before admission she was somewhat upset nervously, though perfectly rational. In the afternoon she went into coma, from which she had not roused—failed to recognize members of the family and did not respond to questions. She had been restless but not violent. Her husband thought that she had not been herself for six months. For that period he said her skin had been getting darker or more muddy, but not yellow. Since the onset of the present illness her bowels had been more constipated than usual, sometimes not moving for a week. Until the evening before admission they had not moved for two days. Her physician said he thought she had shown muddy skin and poor appetite and that she had lost some weight, although she said not.

P. E. A woman showing evident loss of weight, moaning and drowsy, answering no questions, and apparently comatose. Marked jaundice of the entire skin and sclerae. Right diaphragm higher than left. *Lungs* clear. *Heart.* Action rapid. Sounds of fair quality. First sound loud and apparently increased. A soft systolic murmur at the apex. Radials palpable. Brachials tortuous. *B. P.* 110/70. *Abdomen.* Palpation not satisfactory because of lack of coöperation. No definite tenderness except that the patient seemed to feel more comfortable when lying on one side. *Pelvic examination* showed nothing of note. *Rectal examination.* A few hemorrhoids. A number of hard marble-like fecal masses in the rectum. No masses felt. *Pupils* and *reflexes* normal.

T. 98.4°-100.2°. *P.* 81-120. *R.* 11-24. *Urine.* Amount and sp. gr. not recorded, a slight trace of albumin and bile, no sugar. *Blood.* Hgb. 85%, leucocytes 20,000-16,000, polynuclears 74%, reds slightly achromic, platelets slightly decreased. *Non-protein nitrogen* 33 mgm. *Blood sugar* 209 mgm. per 100 c.c. *Bleeding time* 3½ minutes. *Clotting time.* Three tubes at three minutes, all at six minutes. Retraction normal at two hours. *Serum dilution* 1:270.

Orders. June 20. Catheterize every eight hours unless voiding. Soapsuds enema daily. Rectal taps ℥ viii every four hours. Sodium bicarbonate, alternate with 5% glucose. Morphia gr. 1/6 p.r.n. s.c. if restless. June 21. Insulin units xxv. 1500 c.c. of 5% glucose subpectorally.

The patient grew worse and June 22 died.

DISCUSSION

BY DR. RICHARD C. CABOT

NOTES ON THE HISTORY

1. The preliminary statement of the patient's troubles, comprising abdominal pain and a sense of choking, might arise from passive congestion of the liver and lungs, the choking being in fact dyspnea. 2. It might be due to an infarction of the heart wall, the pain being of the anginoid type and the choking a sense of breathlessness. Beyond these no special possibilities occur to me at the outset.

The past history and family history contain nothing that helps us to predict what the present illness is likely to be, nor do the opening events of the present illness help us much. It is not until the note that on June 12 her husband noticed a "darkening of the skin" that we begin to get something significant and the field of possibilities begins to be reduced. Apparently this change of color was due to jaundice, and the chief symptom associated with this was drowsiness progressing to coma on the day before entrance to the hospital. Coma is often seen in intense cholemia from any cause, such as malignant disease obstructing the bile duct or cirrhosis of the liver. But the onset of coma in a jaundiced patient within so short a period, that is within two weeks from the first symptom, so strongly suggests acute yellow atrophy of the liver that as one begins to read the physical examination that is the presumptive diagnosis.

NOTES ON THE PHYSICAL EXAMINATION

The physical examination reveals but little in addition to the facts already known. There is nothing characteristic about the temperature or the blood except that the blood sugar is somewhat above normal.

In the absence of glycosuria one can hardly believe that the case is one of diabetes, especially since the patient has shown no symptoms to suggest that disease.

DIFFERENTIAL DIAGNOSIS

The physical examination then being largely negative I am unable to recall any other plausible diagnosis than that already made presumptively. I do not see how obstructive jaundice could have brought about death within so short a period. The case is obviously not a septicemic jaundice because there is no evidence of septicemia either locally or constitutionally. Nothing is left except the jaundice associated with an acute hepatitis or acute yellow atrophy of the liver.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Acute yellow atrophy of the liver.
Cholemia.

DR. RICHARD C. CABOT'S DIAGNOSIS

Acute yellow atrophy of the liver.
Icterus.

ANATOMICAL DIAGNOSIS

1. *Primary fatal lesion*

Acute yellow atrophy of the liver.

2. *Secondary or terminal lesions*

General icterus.
Fat necrosis of the pancreas.
Acute degeneration of the kidneys.
Slight ascites.

3. *Historical landmarks*

Cholelithiasis, one small stone.

Dr. Richardson: The skin generally showed a marked saffron yellow color and the conjunctivae were yellowish; icterus.

The peritoneal cavity contained about 500 c.c. of thin bile stained fluid.

The serosa of the intestines showed scattered over its small hemorrhagic areas, and in the mucosa there were a number of similar areas. The intestines were otherwise negative.

The anterior margin of the liver was 6 cm. above the costal border in the right mammillary line. The liver weighed 755 grams, very small.

The surface generally was fairly smooth, but there was slight wrinkling in the region of the anterior margin. The tissue of the upper two-thirds of the liver was somewhat softer than usual, and the section surfaces presented smaller and larger golden brown areas with a dark red background which faded out into the dark red homogeneous, slightly leathery tissue of the marginal portions. The anterior margin was thin and its edge rather sharp. The picture was that of yellow atrophy, which the microscopic examination confirmed.

The gall-bladder was slightly distended with thin greenish-brown bile. The mucosa was negative. The bladder contained one stone 1 cm. in diameter which crushed under the thumb, showing dark brownish crystalline material. The bile ducts were free and frankly negative.

Pancreas. Here and there on the surfaces there were minute pale flecks. The organ was otherwise negative. These flecks were minute areas of necrosis.

There was some acute degeneration of the kidneys.

The tissues generally were markedly bile stained.

Inspection of the head and the thoracic organs was not allowed.

CASE 10382

An American housewife of forty-three entered a private hospital in May. Her chief complaints were stomach trouble and a persistent biliary fistula.

P. H. She had never had any serious illnesses, and her general condition had been excellent until the present illness. She had always had some slight trouble with her stomach.

P. I. For a number of years she had had attacks of pain in the upper abdomen, generally in the form of "bilious attacks"—distress, vomiting, distension,—but on only three occasions any pain which required a doctor. The pain did not radiate to the back. She was jaundiced at only one attack, four years before the present admission. Following this attack she had an operation at which her gall-bladder was opened, stones were removed, and the gall-bladder was drained. Her account of this operation was confirmed by a report from the hospital where it was done. Since that time drainage had never ceased. She had had three other operations attempting unsuccessfully to cure the fistula. No data on these operations could be obtained from the surgeons. For six months she had been unable to work because of increasing weakness, some loss of weight, and increasing stomach trouble—frequent attacks of vomiting without pain, generally coming on every four or five days and lasting two or three days.

P. E. A well developed woman showing moderate loss of weight. No jaundice. *Heart* and *lungs* negative. *Abdominal examination* showed a long scar in the right upper quadrant with a small sinus at the upper end discharging a thin mucoid fluid, not bile stained at the first examination. A probe passed into this sinus went three inches in the direction of the liver. Some tenderness around the sinus. No mass. The abdomen was otherwise negative. *Pelvic examination* not remarkable. *X-ray* of the gall-bladder showed nothing of importance. A barium X-ray showed a residue of about half the meal at the end of six hours, but no irregularity in the stomach or at the pylorus. The duodenum was pulled sharply upward toward the region of the gall-bladder and was apparently much narrowed, but no definite ulceration was made out. The *vomitus* while in the hospital was that of undigested food, sometimes with particles of food taken the day before.

Operation was done. The patient made a good recovery from the anesthetic, but eight days after the operation vomited without apparent cause. During the next two weeks this vomiting increased, and she could retain only liquids. Another barium X-ray taken the following week showed practically the same condition shown by the first X-ray.

Because of the patient's weakened condition the shortest way out of the difficulty seemed to be the only fair one, and a routine gastroenterostomy was done. Following this the patient gained rapidly, and three weeks later was discharged.

Discussion

BY DR. EDWARD L. YOUNG, JR.

It is a good rule of thumb that a persistent sinus from a hollow viscus is due to one of two things, obstruction below the opening, or local infection with tuberculosis, malignant disease, or more rarely actinomycosis. In this case it seemed fair to believe that time had ruled out the infections, and that there was an obstruction of the cystic duct due either to a stone or to an abnormal amount of scar tissue which was obstructing not only the cystic duct but also the duodenum. Of course it was possible that there was a duodenal ulcer. But that would involve making two diagnoses, and the story does not in any way suggest it. On the basis, then, that there was an obstruction of the cystic duct it seemed reasonable to direct the attack first to that spot.

PRE-OPERATIVE DIAGNOSIS

Obstruction of the cystic duct from stone, with obstruction of the duodenum from scar tissue.

OPERATION

Gas-oxygen-ether. Incision through old scar. After very difficult dissection through a dense mass of scar what was apparently the remains of the gall-bladder was reached. By following that toward the common duct it was found that the duodenum was adherent to it and definitely constricted by the scar. The duodenum was freed as thoroughly as possible. The gall-bladder was then removed, and a small stone wedged in the cystic duct removed with it. The omentum was pulled up and sutured between the duodenum and the liver in an attempt to prevent the reformation of adhesions.

Further Discussion

The behavior of the patient after the operation brings up again the possibility of a duodenal ulcer. It seems hard to believe that the scar has shut down so rapidly. The persistent sinus is of course cured, the cause having been removed. If the cause of this vomiting is an ulcer, gastroenterostomy is the only cure. If it is scar tissue contraction there is still a possibility that a careful dissection of the duodenum may relieve the situation. In view of the patient's general condition, however, the surest way out that would meet both possibilities seems the wisest procedure.

Cases similar to this are seen not infrequently. If the arbitrary statement about causes of a persistent sinus made at the beginning of this discussion were borne in mind these patients might be spared much unnecessary operating.

LATER NOTE

A letter received nearly three years after the patient left the hospital reports that she has been entirely well since that time, has had no stomach trouble, and has done all the work for her household.

DIAGNOSIS

Persistent sinus from stone in the cystic duct.
Duodenal obstruction due to post-operative scar.

CASE 10383

An American meat cutter of thirty-eight entered June 8.

F. H. Indefinite and unimportant.

P. H. He had always been well. He had the usual children's diseases and scarlet fever in childhood. At ten years he had an abscess in the right ear which discharged for a week. At twenty he had fever of unknown cause which lasted about a week. He had never had inoculation against typhoid fever. For many years he had had occasional burning pain in the epigastrium after meals. His appetite was always good. He had always been constipated and used many cathartic pills. For a year he had had occasional trouble from hemorrhoids, which gave considerable pain and sometimes bled as much as a cupful. For a year he had urinated once or twice at night. Eighteen years ago he weighed 183 pounds, his best weight. For the past ten years his usual weight had been 150, and this was his weight a week before admission. He thought he had lost several pounds.

P. I. He could not say what day he became ill. Twelve days ago he began gradually to lose energy and did not feel well, although his symptoms were indefinite. He lost appetite and his bowels became more constipated than usual, not moving for two or three days at a time. About June 1 he had a very short nosebleed, only a few drops, to which he paid no attention. June 3 his malaise and weakness had increased so that he could not work and went to bed, where he had remained. His physician found his temperature about 102°. It had been 102°-103.5° ever since that time. There had been little change in the way he felt during the last five days. His bowels had continued to be constipated.

P. E. A somewhat emaciated man, sweating profusely. The abdomen and to a lesser extent the chest and back showed numerous erythematous spots from which the color could be expressed. Mucous membranes somewhat pale. Teeth fair. Tongue dry, with a thick brown coat. Apex impulse of the *heart* in the fifth space 8 cm. to the left. Action rapid. No murmurs. *Lungs* clear. *Abdomen* somewhat retracted. No tenderness made out. Spleen not palpable. *Genitals, extremities, pupils* and *reflexes* normal.

Before operation *T.* 102.1°-104.9°, *P.* 90-120, *R.* 14-34; *urine,* ℥ 13-38, cloudy, sp. gr. 1.015-1.019, a very slight trace of albumin at one of two examinations, many granular casts at both, leucocytes and red blood corpuscles at both; *blood,* hgb. 75%-80%, leucocytes 4,200-8,000, polynuclears 69%. *Wassermann* strongly positive. *Blood culture.* Gram-negative motile bacillus. *Diazo* positive. *Widal* positive for typhoid and paratyphoid *A* and *B.*

June 12 a slush bath was given. The patient felt better after it. There was only slight drop in temperature and pulse. That evening his abdomen was distended and slightly tense. There was no spasm at eight o'clock, but at ten there were marked spasm and abdominal pain, and the hiccup which had begun two hours earlier was much more intense and painful. There was tenderness anteriorly and high up by rectum. He had a definite chill with moderate rigor. The temperature, pulse and respiration rose slightly.

At midnight operation was done. The patient failed to rally, and steadily went downhill. There was much serous staining. June 14 there were signs of consolidation in the right base. That day he died.

DISCUSSION

BY DR. EDWARD L. YOUNG, JR.

In the face of an indefinite fever of this nature, with the onset not clean cut, with a slight nosebleed, one would think of typhoid fever, and this suspicion would be stronger when it was found that he had never had an inoculation against this disease.

The picture through the present illness is very markedly like typhoid. Although other infections can cause this picture, for instance catarrhal jaundice, there are as a rule other symptoms to suggest the seat of trouble.

The examination shows what we can call rose spots, and although the spleen is not palpable it seems to clinch the diagnosis. His temperature and pulse before operation certainly are consistent with this diagnosis, a very low pulse in comparison with the temperature. The trouble showing in the urine is consistent with the toxic nephritis present with the disease. He has a low leucocyte count. The Widal absolutely settles the diagnosis. The strongly positive Wassermann would seem to be merely an incident at this time, to be remembered and considered after the typhoid is over.

Until about four days after entrance he apparently behaved as a fairly sick typhoid would be expected to. That evening, however, something happened in the abdomen which, knowing the possibility of perforation, we should place under that diagnosis. It is not so clean cut as we should like to have in order to make an early diagnosis and to perform immediate operation, but it seems as though it was treated well within six hours from the time of perforation. The mortality following operation is of course high, but the mortality without operation is, so far as we know, one hundred per cent, so that the only thing to do is to make an incision, pick up the terminal ileum, where practically all of the perforations occur, and repair the damage with as little delay in time and as little disturbance of the abdominal contents as possible.

DR. YOUNG'S PRE-OPERATIVE DIAGNOSIS

Perforated typhoid ulcer.

PRE-OPERATIVE DIAGNOSIS

Perforated typhoid ulcer.

OPERATION

Novocain. Four-inch right rectus incision. Much turbid fluid in abdomen. In the terminal ileum, within twelve inches of the ileocecal valve, were two perforations apparently on separate ulcers. These were closed in with interrupted silk sutures. Two other areas were noted where the omentum was glued to the terminal ileum as though walling off threatened perforation. The wound was closed in layers around a drainage tube to the pelvis.

Further Discussion

The operation showed in the place where we should expect it two perforations which were quickly closed. The whole thing was apparently done quickly and with little upset. It did suggest, however, a very extensive process in the ileum, with the possibility of other perforations coming on. Nevertheless one would expect from the description that this patient had a good chance to recover. Apparently the whole process was of such severity that he did not have the strength to come back. Two days after operation there was evidence of sepsis which probably put the finishing touch, and he died.

I shall be interested to know whether Dr. Richardson finds other perforations, and whether he will not find that the peritoneal cavity as such is in good shape, showing that that part of the damage had been repaired.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Typhoid fever.
Closure of perforated ileal ulcers.

DR. EDWARD L. YOUNG'S DIAGNOSIS

Typhoid fever.
Typhoid ulcers with perforation.
Localized peritonitis.

ANATOMICAL DIAGNOSIS

1. *Primary fatal lesions*

(Typhoid fever.)
Typhoid ulcers of the ileum with perforation of two of them and surgical closure.

2. *Secondary or terminal lesions*

General peritonitis.
Typhoid hyperplasia of the mesenteric and retroperitoneal glands and the spleen.
Focal typhoid lesions of the liver.
Hemorrhagic edema of the lungs.
Hydropericardium, slight.

3. *Historical landmarks*

Chronic pleuritis.
Chronic perihepatitis.

Dr. Richardson: The abdomen was slightly distended, the wall slightly rigid. There were three puncture-like spots beneath the left pectoral. The skin in scattered places showed minute to small pale purplish areas.

The peritoneal cavity contained a small amount of cloudy fluid and fibrin. The peritoneum generally showed fibrinous exudate. The small intestine was considerably distended. The mucosa down to a point 70 cm. above the ileocecal valve was negative. From this point to the ileocecal valve there were numerous smaller and larger ulcers and a number of smaller and larger grayish plaques, the central portions of some of which were ulcerated. Some of the ulcers showed clean smooth bases resting in the region of the muscularis. A short distance above the ileocecal valve the wall of the ileum presented two rows of sutures. They closed in the intestinal wall over necrotic ulcers. The sutures were intact and the intestine was water tight. The bases of some of the ulcers besides the perforated ones were very thin.

The mesenteric glands were enlarged, brown-red, soft and juicy. The retroperitoneal glands were slightly enlarged and reddened.

The right lung was bound down generally by old adhesions. On the left there were a few old adhesions in the region of the apex and a few to the diaphragm and pericardium.

The lungs showed considerable hemorrhagic edema.

The liver showed a few focal typhoid lesions.

The spleen weighed 390 grams, considerably enlarged. The tissue was dark purplish red, very mushy.

The head was not examined.

CURRENT LITERATURE

ABSTRACTORS

Gerardo M. Balboni
William B. Breed
Laurence D. Chapin
Austin W. Cheever
Randall Clifford
Ernest M. Daland
Horace Gray
Robert M. Green
John B. Hawes, 2d
John S. Hodgson
Fred S. Hopkins
Chester M. Jones
Charles D. Lawrence
Tracy Mallory
Herman A. Osgood
Francis W. Palfrey
Edward H. Risley
George C. Shattuck
William H. Shedden
Warren R. Sisson
John B. Swift, Jr.
George G. Smith
W. T. Sherman Thorndike
Wilder Tileston
Henry R. Viets
Shields Warren
Bryant D. Wetherell

Puerperal Sepsis

Whitehouse, B. (*The Lancet, May* 31, 1924), discussing the prevention and treatment of puerperal sepsis, concludes that, with our present knowledge, it is far better to prevent puerperal fever than to attempt its cure. Whilst acknowledging the debt we owe to therapeutics in reducing the mortality from puerperal sepsis, the problem of prophylaxis appears to offer less difficulties in the attainment of success.

[R. C.]

The Etiology of Plague

Liston, W. G. (*British Medical Journal*, May 31, 1924), in an article on the etiology of plague, summarizes his remarks as follows: The modern study of bubonic plague has shown that the disease is essentially one of rodents; that men become infected from these animals by living in propinquity to them; that the plague bacilli, which are the cause of the disease, are transmitted from rodents to men by the instrumentality of fleas, which, on account of their anatomical structure, are liable to develop a peculiar pathological condition which allows the injection of the bacillus under the skin when certain species of rodent fleas feed upon men in exceptional circumstances.

[R. C.]

GOITRE

McCarrison, R. (*British Medical Journal*, June 7, 1924), in an article on goitre, concludes that there are two main factors on which the prevention and cure of goitre depend: (1) the general hygiene of the individual, and especially of the intestinal tract; and (2) the amount of iodine available for the needs of the thyroid gland and the organism generally.

[R. C.]

TWO PROCEDURES FOR RELIEF OF OBSTRUCTIONS AT THE VESICAL END OF THE URETER

Caulk, John R. (*Journal of Urology*, June, 1924). Intravesical obstructions of the ureter are quite frequent in their occurrence, hence the importance of combined cystoscopy and ureterography. Such obstructions seem to originate from the two distinct causes: obstructions which may be congenital or acquired, and developmental defects in the ureter itself. Regardless of cause, free incision of orifice for drainage is necessary. Present cystoscopic methods are unsatisfactory. High frequency scissors has worked effectively in certain obstructions. Where cystoscopic methods are inadvisable or impossible, free opening of the ureteral orifice by intravesical transposition operation is indicated. This operation is much less hazardous and much more effective than ureterovesical anastomosis.

[B. D. W.]

MULTIPLE PERSONALITY OF DR. GUY PATIN

In the March, 1924, issue of the *Annals of Medical History* (Vol. VI, No. 1), **Dr. Courtney** of Boston presents an interesting study of Guy Patin as a case of multiple personality. Perhaps the same might be said of any genius as versatile as the famous French surgeon. In any event, Dr. Courtney makes out his case with his usual felicity of comment and description.

In the same issue Dr. Horace M. Brown of Milwaukee presents a translation of the Latin edition of 1498 of the De Venenis of Petrus Abbouns; James F. Ballard of Boston publishes the first instalment of his descriptive outline of the history of medicine, extending from its earliest days to 600 B. C.; and Dr. Isador H. Coriat of Boston furnishes a delightful review of Dr. William Macmichael's "The Gold-Headed Cane," first published in 1827, republished in its fourth edition in 1915.

[R. M. G.]

ANTHRAX TREATMENT WITH INTRAVENOUS NEOSALVARSAN

Grasser reports (*Wien. klin. Woch.*, March 13, 1924) excellent results, with a series of seven photographs, in the treatment of human anthrax by means of intravenous neosalvarsan injections, combined with skin plastics.

[R. M. G.]

ABASIN: A NEW SEDATIVE

Kor[illegible]chan, from Schüller's nerve clinic in Vienna, reports (*Wien. klin. Woch.*, March 20, 1924) favorably on his experience with the use of the new sedative, abasin, which he recommends warmly for its energetic action without subsequent sense of weariness. Its active chemical ingredient is Bromdiethylacetylcarbamid.

[R. M. G.]

PREVENTION OF POST-OPERATIVE URINARY RETENTION

Von Stepelmohr, from Hybbinette's surgical clinic at Stockholm, reports (*Münch. med. Woch.*, March 21, 1924) a method which he has found usually successful in preventing post-operative urinary retention and the consequent necessity for catheterism. It consists in the intravenous injection of 5 cc. of a 40 per cent. solution of urotropin within 16 hours after operation.

[R. M. G.]

RESUSCITATION AFTER DEATH

Eisenmenger (*Wien. klin. Woch.*, April 10, 1924) describes his apparatus for resuscitation after apparent death. It provides a method for simultaneous artificial respiration, artificial blood circulation, and cardiac massage.

[R. M. G.]

LIGHT PERMEABILITY OF THE HUMAN SKIN

Bernhard, from the pathologic institute at Mannheim, reports (*Münch. med. Woch.*, April 4, 1924) his studies on the light permeability of the human skin and its relation to the absorption of light. He finds that wave-lengths of 300 uu are most strongly absorbed by the skin. The human skin is most permeable for wave-lengths of 600 uu, and the retina is also most sensitive for this region of the spectrum.

[R. M. G.]

CAUSES OF SUDDEN DEATH

From an analysis of 11,000 autopsies, **Haberda** (*Wien. klin. Woch.*, April 24, 1924) summarizes and discusses the causes of sudden natural death.

[R. M. G.]

MENSTRUAL REACTION IN TUBERCULOSIS

Maendl, from his sanatorium at Grimmenstein, points out (*Wien. klin. Woch.*, May 1, 1924) that tuberculous processes, especially of the lungs, are activated during menstruation; and that this is therefore the best time in female patients to determine degrees of improvement or to make early diagnosis.

[R. M. G.]

SUCKLING IN SYPHILIS

Hesse (*Wien. klin. Woch.*, May 8, 1924) denies the customary teaching that a syphilitic mother may safely suckle her healthy child, and believes that in such cases the baby should always be given substitute feeding.

[R. M. G.]

LEOPOLD'S FOURTH MANOEUVRE

Demme, from Schröder's clinic at Kiel, discusses (*Münch. med. Woch.*, March 28, 1924) the precise value of Leopold's fourth manoeuvre for the avoidance of vaginal examination during labor.

[R. M. G.]

INDICATION FOR EPISIOTOMY

Bucura, from the gynecologic section of the general polyclinic at Vienna, describes (*Wien. klin. Woch.*, April 17, 1924) infantilism as a constitutional indication for episiotomy. [Perhaps this indication is as good as any; but episiotomy remains a young man's operation.]

[R. M. G.]

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THE BOSTON MEDICAL LIBRARY

AN editorial in this JOURNAL for July called attention to the fact that the Boston Medical Library was approaching a time when it would be necessary for it to expand in some way in order to keep pace with the growth of the collection of books, periodicals and reprints which it has to house and catalogue. We become accustomed to our everyday comforts and conveniences. Until something occurs to deprive us of them we do not know how well off we are. This Library has attained the distinction which it has so long enjoyed, not only because its collection of medical books and periodicals has been large and fairly complete but because of the service which the staff of the Library were able and anxious to give. Because of the availability of this service the advantages of this Institution have been employed by many outside the circle of those for whom it was primarily intended and by whom it was largely provided. The Courts and the District Attorney's office are frequently seeking aid at its hands; lawyers and newspaper men resort to it often. Simmons College, Wellesley College, the Sargent School for Physical Culture, the Mass. Institute of Technology, the Marine Biological Laboratory, Bussey Institute, as well as Medical schools and their students, the State Board of Health, and the medical examiners are more than occasional users of its collections. Besides these, college and general libraries throughout New England send in for books of reference, information and periodicals for the benefit of their own clientele. The anti-vivisectionists even take advantage of the Library's facilities.

Statistics show that over five hundred more non-members than members used the Library last year. The officers of the Institution welcome such use of their facilities and have no disposition to curtail this service. The time is fast coming, however, indeed is already here, when the service which the staff has been able heretofore to supply and which has, as already stated, accounted for the reputation of the Library as a work room for research and study, can no longer be supplied. The books are here; the periodicals go on accumulating but shelf space is not available and articles called for can not be readily located by the attendants because of the crowded and disorderly accommodations into which the books must be placed. In the summer time, as at all other seasons of the year, there are many men coming here from a distance for the purpose of carrying on their literary researches in quiet, in a place equipped to supply their needs. It is a matter of pride and gratification that the advantages here offered are so widely appreciated. It would be a source of deep regret should it happen that this reputation should be lost for lack of proper stock room and cataloging facilities. The energy and far sightedness of a number of men in the Boston profession have, in the past, supplied the incentive and collected the funds whereby such success as has been attained has been secured. We must suffer no lapse in our interest in this Institution and see to it that the wisdom and energy of our predecessors finds a willing and energetic response to the needs of this most worthy adjunct to all medical and public health progress.

MEDICAL JOURNALISM

THE London *Medical Press and Circular* comments editorially on a leading article in the New York *Medical Journal and Record* which describes medical journalism as characterized "by loose thinking, sloppy construction and half-baked ideas, and adds that the medical editor, as a rule, is a creation of circumstances and a misfit in the profession, who is obliged to eke out a half-existence as an underpaid compiler of medical thought with which in its broad sense he is relatively unfamiliar." A scathing indictment indeed! We are tempted to wonder, in regard to the author, who has been "kicking his dog around."

It is unquestionably true that there are too many medical journals published, and particularly in this country; it is also an undeniable fact that in the medical profession ability and success are measured largely by literary productiveness. Much of this is poor and it must find its outlet, which is not always in the poorer journals. To check this tide of publication would be an impossibility, for there is a subtle blandishment in the printed page that cannot be resisted; nevertheless it would be appreciably diminished if no one set his pen to paper except for the purpose of delivering a message that could not be kept back; one that the writer honestly believed would be of value to the practice or the science of medicine. This is Utopian. Authors will continue to bud like leaves through the hidden powers of nature, and the pruning must be done by the inexorable shears of the editor. In the editors' hands lies the future of medical journalism; if they are fearless and without favor a valuable type of literature will be fostered; if they seek only to fill fair white paper with the printed word, much of the criticism of the *Medical Journal and Record* will be justified.

A close analysis of the several hundred medical journals published in this country would reveal many that might fall and few would follow the hearse. These, however, should not be accepted as a basis for a blanket indictment of medical journals as a whole, including their editors. Many medical editors, and we could name a few, have accepted their posts through a feeling of responsibility to the profession they have adopted, or through a capacity for literary achievement that demanded an outlet. Many of them believe that the pen is more potent than the scissors and wield it with a valor and an ability that rises above and refutes the harsh condemnation of even the *Medical Journal and Record*. Many of these carry on their editorial duties, not as a substitute for work in which they are misfits but as a fitting complement to meritorious professional work of which they realize the breadth and dignity. They are not loose thinkers or half-bakers of ideas; they are not creations of circumstances or misfits in the profession. They are men of judgment and sturdy character who are perpetuating the ideals that they have found in a profession of ideals.

THE ABRAMS VERDICT

The publication in the September *"Scientific American"* of the final report of the committee appointed to investigate the claims of those who employ the electronic reactions of Abrams settles, once for all, the value of those alleged reactions. The committee, composed of scientists of standing, studied this question impartially for more than a year. Their conclusion, that the electronic reactions of Abrams do not exist, and that the therapeutic effects of the oscilloclast are nil, may be accepted as authoritative. It is to be hoped that the press of the country will give wide publicity to this verdict, so that the thousands of deluded victims of this most ingenious fraud may know the worthlessness of E. R. A.

There is no excuse, now, for the State Board of Registration in Medicine to permit this form of quackery to be practised within their jurisdiction. Armed wth the decision of the investigating committee, they can carry such cases to court with every expectation that their action will be sustained. It is a disgraceful fact that within ten miles of Boston, one of the practitioners of electronic medicine advertises in the public press a free clinic twice a week. Determined action against the most prominent of these practitioners would rapidly discourage the remainder, and electronic medicine would soon take its rightful place among the great medical fakes of history.

MEDICAL EDUCATION AND RURAL PRACTICE

The President of the American Medical Association, Dr. William Allen Pusey, in his address to the House of Delegates, called attention to the length of time which is now required to secure a medical education and to the difficulty of securing physicians in the country districts. He proposed as a remedy for these conditions the giving of a special degree and shortening the time required to secure the degree of M. D. in order to practice medicine. This address has been seized upon by the Middlesex Medical Students' Magazine called the Caduceus, who state that they reproduce the address and allude freely to the fact that Dr. Pusey, who was for many years treasurer of the American Medical Association, is not in the inner circle which is trying to oppress the cheap medical schools throughout the country. The article in the Caduceus states that it reproduces the address of President-elect Dr. William Allen Pusey almost in full. There is one paragraph in that address which perhaps through inadvertence they have not reprinted. This paragraph reads as follows: "In this proposition I am making no plea for the poor or the cheap medical school. The essential of a sound education of this sort, or of any sort, is a sound institution conducting it. It would make the requirements on medical schools as exacting as necessary to hold them to high standards of scholarship. I would have them, as far as possible, an integral part of strong educational institutions."

Dr. Pusey's address concerned itself with matters which had been fully covered in the report of the Council on Medical Education and Hospitals and it was inevitable that the Reference

Committee, of which the writer had the honor to be chairman, in their report, should allude to the subjects which were taken up in Dr. Pusey's address. It seemed to the Committee that he was proposing for a condition, which was not so serious as he considered it, a remedy which would be infinitely worse than the disease, in that it would not provide for the needs of the rural districts and would at the same time have a most dangerous effect upon medical education and the character of the physicians of the future. The report of the Committee is here reprinted:

REPORT OF THE REFERENCE COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

The report of the Reference Committee on Medical Education and Hospitals was presented by Dr. F. B. Lund, Massachusetts, as follows:

Your committee notes with satisfaction the fact that, though the total number of medical schools in the country has been reduced from 160 to eighty, the number of higher standard and better equipped schools has risen from two to seventy-four, sixty-three of which are integral parts of universities—a truly remarkable showing. The student enrolment, which had been reduced during the drastic but necessary period of house cleaning, had fallen from about 28,000 in 1909 to 12,930 in 1919, and has been rapidly increasing, until, in 1923-1924, 17,808 students are enrolled, 93.3 per cent. of whom are in institutions which have the higher entrance standard. This is very satisfactory.

A glance at the chart opposite page 80 will show that the present increase in the number of better qualified graduates is going on so rapidly that before long there will be no question of a shortage of medical graduates. At the present time there is one physician in the United States to 724 inhabitants, against one to 1,087 in the British Isles. The improvement in the qualifications of the graduates has had most gratifying results. In one of our Southern states in 1915, out of thirty-six applicants for registration, only eleven could be accepted. Last year, as a direct result of the raising of the school standards, 100 per cent of the graduates passed the examination and secured their licenses. One result of the raising of the standards has been that, on account of the length of the course, graduates in medicine are often unable to begin practice before the age of 28, which puts them at a disadvantage in comparison with young men entering other lines of work.

Another result that has been attributed to the raising of the standards is the unequal distribution of the physicians between the city and the country, considerable areas of the rural districts in many parts of the country being at present inadequately provided with medical service. This condition is said to be due to the fact that the medical student, having incurred a high expense for his training, is unable to make enough money in the country to go there and live and, therefore, flocks to the city.

The chief reason that men move to larger places, however, is that they do not want to subject themselves and their families to the hardships of life in districts without adequate sanitation, conveniences, schools for their children, churches, human intercourse, and the other amenities of civilized existence. As stated in this report, this condition is being constantly and greatly alleviated by improvement in means of transportation, good roads, automobiles, etc., which have enabled the physician to attend to a practice extending over a much larger area than formerly. Shall we attempt to cure this condition, which is not in the first place due to the raising of the standards of medical education, by the dangerous, the humiliating, the suicidal method of lowering the standards, which we have so painfully raised by years of hard struggle and intelligent, conscientious work? Your committee believes that the answer of the Association to this question will be No! The benefits that are constantly accruing to the public from the services of properly trained physicians are too great to be sacrificed. We have made it possible for our young practitioners to become learned and efficient men who know, so far as it is humanly possible, what they are doing. Shall we open the door to mediocrity, ignorance and carelessness, and abandon our hard won heritage? Your committee hopes not. The advanced age at which students go to work is a real difficulty, but the lowering of the standards of medical education is not the way to meet it. By a speeding up in the work of our grammar and high schools, it is perfectly possible for a boy to be ready for his college years at 17 instead of 19, and get ready to practice at 26, instead of 28. The high school authorities are already thoroughly alive to this, as is shown by the fact that the average age of graduation in medicine in 1922 was 27.8 years. On the other hand, there has been a noticed tendency on the part of one or two of the universities to raise the requirement from two to four years. To any further raising of the standard your committee is opposed, because if the requirements are made too stringent and the length of medical education is made too great, it will be difficult for the graduate and will be even more difficult to get graduates to go to rural districts.

The Council on Medical Education and Hospitals is conferring with the authorities of our universities and high schools to bring about the speeding up of secondary education. The authorities of the University of Chicago and elsewhere are in sympathetic coöperation, and your committee would urged the Council to spare no effort in bringing about this, which it believes to be the real solution of the problem.

In this connection, it should be remembered that there are certain reasons that will always operate to make medical education take no longer than the business and engineering professions. A man ought to be more mature before he takes the responsibility for the physical, let alone the mental and moral, welfare of the human machine. It is certainly more complicated and delicate than an engine or a bridge, and touches life at more points, so to speak. Again, we believe that rural communities would not be satisfied with partially trained men, and as soon as it was learned that there were better physicians in the larger communities, the farmer would get into his Ford and go to consult them. So that even this short cut to the supply of the rural districts, made at so great a sacrifice of right, honor, principle and public safety, would be inefficient after all, and the real humiliation of seeing our great Association recant all it has said about high standards and devotion to the real welfare of the public would have been suffered in vain. The real problems of how to get the benefit of trained men for the rural districts has not been solved. The committee appreciates, however, the continued efforts of the Council to solve this problem, and hopes that the Association will give it every encouragement to continue their labors along the present lines. Whatever this remedy may be, we do not believe it lies in the lowering of the standards of medical education. The committee, also, approves of the warfare which the Council is making on the cults, which are still a serious menace and which can be efficiently met only by the present methods of educating the public to their real nature and danger.

Respectfully submitted,
Thomas S. Cullen.
J. A. Witherspoon.
Joseph Rilus Eastman.
William H. Mayer.
Fred B. Lund, Chairman.

This was adopted.

This report was adopted by the House of Delegates, which is a democratic governing body, consisting of representatives of all the state medical associations which are members of the American Medical Association, and is in no sense the work of a clique or a ring, to which the critics of the American Medical Association are so fond of attributing any action of that body.

We cannot but feel that Dr. Pusey would regret the use which has and will be made of his address by such institutions as the Middlesex Medical College, and would feel especially hurt that in quoting his address they should select the parts which might be made favorable to their propositions and leave out the one paragraph which would eliminate them from consideration.

Fred B. Lund.

MEDICAL MEETINGS

An effort has been made to publish the dates of our state and local medical meetings in advance.

The advantage of having these facts available consists in having at hand a record which may be useful in arranging for other meetings so that complicating dates may be avoided.

Our experience tends to show that the programs of a considerable proportion of medical meetings are not arranged far in advance or that the secretaries of societies are not inclined to furnish the information for publication before sending notices to members.

Our columns are open for notices of medical meetings. We have written to the secretaries of the district societies asking for advance announcement. In previous years many notices of medical meetings came too late for publication before the time of the meeting. The explanation may be that this Journal is on regular mailing lists and although the notices were mailed in time for the members of the societies to get the information several days in advance of the meeting, they were received too late for publication except in the past tense.

The Journal will appreciate coöperation.

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CORRESPONDENCE

LONDON LETTER

(From Our Own Correspondent)

MENTAL HYGIENE

Mental hygiene was discussed at the International Conference organized by the People's League of Health at the British Empire Exhibition at Wembley on May 23 last. Colonel Sir Courtanld Thomson, who presided at the meeting, said it was gratifying to find that the world at large was beginning to attach almost as much importance to mental hygiene as to physical hygiene. It had become a truism to say that the two questions were closely correlated and were interdependent. They must see that their fellow countrymen lived in conditions of mental hygiene which were not inferior to the standard of physical hygiene which now prevailed throughout the country.

Dr. E. Farquhar Buzzard, speaking on "A Comparison of Physical and Mental Disorders," said the first principle of psychological medicine was a recognition of the similarity in the laws governing disorders of the mind and those governing disorders of the bodily organs. In other words, for the purpose of mental hygiene the mind must be regarded as representing the function of the brain, just as respiration was regarded as the function of the lungs or digestion as the function of the alimentary canal. He lived at a time when it had become the fashion to discuss his or her bodily ailments and those of their friends and relatives without reserve or restraint at the tea table or dinner table. Silence or whispered comment came into play only when mental ailments were the subject of discussion. He had nothing but abhorrence for the craze on the part of ignorant people eagerly discussing medical subjects, but if they must be discussed, why should a man confess without a blush to a disorder of the liver, the result of overeating or overdrinking, while his brother dare not suggest for a moment that his mind was disordered as the result of overwork or over-anxiety? It was permissible for him to admit that he was a victim of "nerves" or of a nervous breakdown, knowing full well that he would receive but a tenth of the sympathy dealt out to his liverish brother. We must recognize and we must make everyone recognize that when anyone suffered from "nerves" he suffered from a mental disorder. We all suffered from mental disorders at one time or another. When he was tired and irritable, and when he made mountains out of molehills, his disorder was mental. "Nerves" was a term invented for our deception, because we did not like talking about our minds. No doubt the dread of talking about our minds arose from the suggestion of insanity. So long as this prejudice about the mind existed, anyone beginning to suffer from ill health would refuse to acknowledge, even to himself, its mental origin. He would convince himself that his stomach, or his liver, or his spine was to blame, that his house or the climate did not suit him. In nine cases out of ten he would deceive not only himself but his doctor, with the result that a disorder which at the time was easily remediable was left untreated until perhaps too late. The fear of mental disorder stood in the way of its prevention or cure. Medical science must ever be powerless in the face of ignorance and prejudice. Medical opinion was unanimous in the belief that all hope of improvement in the physical health of the community was bound up not with the cure of advanced disease, but with the prevention and early detection of disorders of function. It was equally certain that the future mental health of the world was far less concerned with the cure of insanity than it was with the prevention and early detection of mental disorders. He had no hesitation in saying that if the prejudice about the use of the word "mental" were destroyed and the employment of the word "nerves" abolished in the next ten years the biggest step in the promotion of mental hygiene would have been taken, and that that alone would mark that period as one of the greatest epochs in the advance of medicine and in the promotion of health and happiness. Improvement in the mental health of the community must be the work largely of medical men and women; but they would be hampered at every turn until the public was educated up to a knowledge of certain fundamental principles and had discarded its preconceived notions of what was meant by mental health and mental disorders.

Sir Frederick Mott, dealing with the subject of "The Study and Treatment of Insanity," said that it had been shown that one of the most fatal forms of mental disease, general paralysis of the insane, could be prevented by the adoption of all those measures which the state and the medical profession and the public had adopted for the prevention and treatment of venereal disease.

Dr. H. Crichton Miller, speaking on "The Economic Importance of Mental Hygiene," said there was no hard and fast differentiation between sane and insane. Enlightened opinion realized today that some asylum cases were curable, that many uncertified cases of mental breakdown could be saved, and that a very great proportion of both might be prevented.

Dr. R. G. Rows said to recognize that the delinquent was made and not born would put an end to the feeling of helplessness and hopelessness which seized so many who were interested in the subject, and would justify the hope that changing the environment and educating the parents and child would do much to prevent the development of delinquency.

VIENNA LETTER

(From Our Regular Correspondent)

TEACHING OF HYGIENE IN PRIMARY SCHOOLS

In connection with the movement for the teaching of hygiene in primary schools, an influential deputation waited the other day on the Chief Commissioner of National Education in Austria. Among the spokesmen were several prominent members of the Medical Association. It was strongly pressed on the Commissioner that the teaching of hygiene and temperance should be made compulsory in the primary schools throughout the country, and that greater care should be taken to keep school buildings in proper sanitary condition. It was freely admitted by the Chief Commissioner that the rules of the Board as to the sanitary care of school buildings had been quite neglected in the past, and he quoted instances of scandalous mismanagement in this respect, the only excuse for which was the great want of sufficient sums. Steps are being taken, however, to stop the grant to any school which shall in future be reported by the Board's inspectors as improperly kept as regards sanitary arrangements. With respect to the teaching of hygiene, the Chief Commissioner bound himself to urge on his colleagues the advisability of including it in the new program of studies as a compulsory subject. The result of the deputation is, on the whole, satisfactory, and it is hoped that before long every child in Austria will learn something of the value of fresh air and cleanliness, and of the proper care of the human body.

HEALTH AND STATISTICS OF AUSTRIA

It is difficult to pick any crumbs of comfort out of the latest statistical returns. Although the state of the country is good as regards prevalence of disease, yet the birth rate is low in proportion to the death rate, and the marriage rate remains well under the pre-war proportion. The emigration figures still show an increase, not merely relatively to the estimated population, but in absolute numbers. Compared to the vital rates of Germany during the same period (the first half of 1924), the Austrian birth rate is 23.3 per 1000 to 28.1 in Germany. These figures depend in Austria on the fact that it is the young adults who emigrate at the very time when they should be adding to the birth rate. The mortality from infectious diseases is somewhat below the average. Smallpox has appeared in sixteen or more centers during the year, and two deaths resulted. Measles has caused less trouble than in previous years, but whooping cough of a severe type has been more prevalent than usual. Enteric fever has been less prevalent this year than is usual, though in Vienna it was responsible for 119 deaths.

ALCOHOL AS A FOOD

The Medical Society of Cluj, Transylvania, had a special meeting devoted to the discussion how to fight against alcoholism. Dr. Aladar Elfer spoke about alcohol as a food. He said that the views of the unconditional adherents of alcohol with regard to the question of its nutritive value are not in accordance with actuality. Of the quantity of alcohol introduced into the system very little is consumed, the greatest part leaving the organism as water. It is to be admitted that the little quantity consumed lends some elasticity to the bodily functions, and limits the consumption of other material introduced. The albumen-sparing action is not noticeable during the first few days of its use, but later on it becomes evident as in the carbohydrates and fats. The interesting fact of the absence of albumen-sparing property during the first few days of its use cannot be explained by its washing out terminal products of tissue change. Dr. Elfer summed up the results of all experiments that alcohol in regard to its action as a food stands well below under the line of carbohydrates and fats. As regards its poisonous action in small doses, he does not believe that very moderate doses of alcohol have any poisonous action.

ALCOHOL AND TREMOR

Dr. Döry said that a fine muscular tremor of a static character is generally considered to be one of the signs of chronic alcoholism. When nervous control is impaired to such a degree that the condition becomes practically chronic, the tremor can be relieved up to a certain point by greater indulgence in the drug. The popular idea that alcohol steadies the nerves, which is, unfortunately enough, still only too prevalent, has probably arisen from a knowledge of its action in this respect. The tremor produced in this manner is toxic in nature, acting through the nervous system, though when once well established it is difficult to distinguish from other varieties of nervous tremor. It would appear, he said, that alcohol may occasionally be of some therapeutic value in controlling tremors of a totally different origin. The case he had lately is worthy of note in this respect. The patient was a man, aet. 47, who presented the symptoms of disseminated sclerosis, from which he had suffered many years. The volitional tremors were very severe, so that eating and drinking were very difficult. The man had found, however, that these movements were almost entirely controlled by drinking a large quantity of wine; at any rate, he was by its means enabled to earn his living as a watchman. He had other signs of alcoholic poisoning, such as impaired digestion, disturbed dreams and occasional excitement. An attempt was made as soon as he came under medical observation to substitute some other drug for alcohol in order to lessen the amplitude and intensity of the intentional tremors associated with his nervous disease, but each one was a failure. Alcohol was the only thing that appeared to control them to anything like a reasonable extent. The way and manner of its action in this case is not obvious, and it can hardly be supposed that the beneficial results will be permanent.

ALCOHOLISM AND INSANITY

Dr. Coloman Kenéz said that there is a great difference between authors as to the frequency or prevalence of insanity among alcoholists. In the classification, for instance, no two observers are returning the same table for any hundred patients. His (Dr. Kenéz's) judgment is that 30 per cent. of the male patients in the asylums of Transylvania were made insane as a result of the use of alcohol. This is in marked contrast with the figures of other observers. For instance, the average throughout the English asylums is returned as 16 per cent. It is very noticeable and strongly in support of the opinion of other observers, particularly those of Scotland, that in the special form of insanity known as alcoholic, about whose diagnosis there is no mistake, there has been a decided increase in recent years. At the same time it is not necessary to assume that drinking habits are actually on the increase. It would explain the facts—if in truth they are facts—equally well to hold that there is a diminished resistance on the part of the organism to alcoholic poisoning. Dr. Kenéz is inclined, indeed, to think that in many cases alcoholism is primarily a symptom of the mental weakness which it in turn increases.

AMERICAN MEDICAL ASSOCIATION

Council on Pharmacy and Chemistry

Editor, Boston Medical and Surgical Journal:

In addition to the articles enumerated in our letter of July 26 the following have been accepted:

- Coleman & Bell Co.—
  - Gentian Violet Improved Medicinal
- Hynson, Westcott & Dunning—
  - Meroxyl:
    - Meroxyl Tablets—H., W. & D.
- Jensen-Salsbery Laboratories—
  - Rabies Vaccine (Human) Phenol Killed
- Eli Lilly & Co.—
  - Oridine:
    - Oridine Tablets
- H. A. Metz Laboratories—
  - Silver-Salvarsan, 0.6 Gm. Ampules
- National Aniline and Chemical Company—
  - Gentian Violet Medicinal—"National"
- Parke, Davis & Co.—
  - Diphtheria Toxin-Antitoxin Mixture, 0.1 L+ — P., D. & Co.
- E. R. Squibb & Sons—
  - Antistreptococcic Serum—Squibb, packages one 10 c.c. syringe
  - Antistreptococcic Serum—Squibb, packages one 50 c.c. vial
  - Antistreptococcic Serum Rheumatic — Squibb, packages one 20 c.c. vial
  - Antistreptococcic Serum Rheumatic — Squibb, packages one 50 c.c. vial
  - Diphtheria Toxin-Antitoxin Mixture (New Formula), packages 30 1 c.c. ampules
  - Sulpharsphenamine—Squibb, 1 gm. ampules
  - Sulpharsphenamine—Squibb, 3 gm. ampules
- Frederick Stearns & Co.—
  - Insulin—Stearns Quadruple Strength
- Wilson Laboratories—
  - Ampules Pituitary Solution—Wilson, 0.5 c.c.
- Nonproprietary Articles—
  - Thiosinamine
  - Gentian Violet Medicinal

Yours truly,
W. A. Puckner, *Secretary,*
Council on Pharmacy and Chemistry.

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MISCELLANY

CONNECTICUT DEPARTMENT OF HEALTH

Weekly Morbidity Report for the Week Ending September 6, 1924

Diphtheria

Fairfield County	
Bridgeport	1
Shelton	1
Stamford (C)	4
Hartford County	
Hartford	1
Litchfield County	
Torrington	1
New Haven County	
Ansonia	1
Milford	1
New Haven	1
Waterbury	1
New London County	
New London	3
	—
State total	15
Last week	17

The following diphtheria bacilli carriers were reported:

Groton (B)	1
Hartford	3
Manchester	2
New Haven	2

Scarlet Fever

Fairfield County	
Bridgeport	3
Stamford (C)	1
Hartford County	
Bristol	3
Hartford	6
Suffield	1
New Haven County	
Waterbury	1
New London County	
Colchester	1
New London	1
Tolland County	
Rockville	1
	—
State total	18
Last week	13

Typhoid Fever

Hartford County	
Enfield	1
Wethersfield	1
Windsor	1
New Haven County	
New Haven	1
Wallingford (B)	1

New London County	
Preston	1
State total	6
Last week	17

Measles

Hartford County	
Suffield	1
New Haven County	
New Haven	1
State total	2
Last week	9

Whooping Cough

Fairfield County	
Bridgeport	1
Stamford (C)	2
Hartford County	
Hartford	5
Southington	2
Middlesex County	
East Haddam	3
New Haven County	
Milford	4
New Haven	23
State total	40
Last week	27

Other Communicable Diseases

Cerebrospinal men.	1
Chickenpox	5
Conjunctivitis	1
Dysentery (bac.)	4
Encephalitis epid.	1
Influenza	1
Malaria	3
Mumps	5
Pneumonia (lobar)	6
Poliomyelitis	8
Trachoma	2
Tuberculosis (pul.)	34
" (other forms)	2
Gonorrhea	11
Syphilis	12

MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

Diseases Reported to Week Ending August 29, 1924

Disease	*No. of Cases*	*Disease*	*No. of Cases*
Anterior poliomyelitis	16	Ophthalmia	10
Chickenpox	4	Pneumonia, lobar	14
Diphtheria	76	Rabies	1
Dog-bite	7	Scarlet fever	48
Dysentery	2	Syphilis	42
Encephalitis lethargica	3	Suppurative conjunctivitis	5
Epidemic cerebrospinal meningitis	3	Tuberculosis, pulmonary	94
German measles	7	Tuberculosis, other forms	18
Hookworm	2	Typhoid fever	21
Measles	24	Whooping cough	42
Mumps	21		

Diseases Reported to Week Ending September 6, 1924

Disease	*No. of Cases*	*Disease*	*No. of Cases*
Anterior poliomyelitis	15	Ophthalmia neonatorum	4
Chickenpox	5	Pneumonia, lobar	18
Diphtheria	85	Scarlet fever	54
Dog-bite	5	Septic sore throat	3
Encephalitis lethargica	2	Syphilis	51
Epidemic cerebrospinal meningitis	2	Suppurative conjunctivitis	8
German measles	4	Tuberculosis, pulmonary	85
Gonorrhea	99	Tuberculosis, other forms	10
Influenza	1	Typhoid fever	16
Measles	34	Whooping cough	58
Mumps	17		

RHODE ISLAND STATE BOARD OF HEALTH

Contagious Diseases Reported to the State Board of Health of Rhode Island for the Week Ending July 26, 1924

Diphtheria

Pawtucket	1
Providence	7

Mumps

Providence	1

Poliomyelitis

East Providence	1

Measles

Providence	1

Scarlet Fever

Hopkinton	1
Pawtucket	1
Providence	6
Westerly	1

Typhoid Fever

East Providence	1

Whooping Cough

Hopkinton	1
Providence	4
Westerly	3

Contagious Diseases Reported to the State Board of Health of Rhode Island for the Week Ending August 2, 1924

Diphtheria

Pawtucket	1
Providence	10

Scarlet Fever

Providence	8

Mumps

Westerly	2

Poliomyelitis

Providence	1

Ophthalmia Neonatorum

Hopkinton	1

Whooping Cough

Providence	1

Pneumonia

Providence	1

German Measles

Little Compton	2

Measles

Providence	1
Pawtucket	2

Chickenpox

Cumberland	2
Westerly	1

Contagious Diseases Reported to the State Board of Health of Rhode Island for the Week Ending August 9, 1924

Scarlet Fever

Providence	3

Diphtheria

Central Falls	1
Cranston	1
North Providence	1

Providence	5

Measles

Cranston	1

Whooping Cough

Providence	2

Contagious Diseases Reported to the State Board of Health of Rhode Island for the Week Ending August 16, 1924

Diphtheria

Providence	7
South Kingstown	1

Mumps

Charlestown	1
Little Compton	1
Westerly	1

Scarlet Fever

Providence	2

Whooping Cough

Providence	4

Contagious Diseases Reported to the State Board of Health of Rhode Island for the Week Ending August 23, 1924

Diphtheria

Newport	1
Providence	4

Typhoid Fever

Newport	1
Providence	1

Scarlet Fever

Providence	3

Chickenpox

Providence	1

Poliomyelitis

Warwick	1

Whooping Cough

Providence	1

Pneumonia

Pawtucket	1

Ophthalmia Neonatorum

Providence	1

Contagious Diseases Reported to the State Board of Health of Rhode Island for the Week Ending August 30, 1924

Diphtheria

Providence	3

Cerebrospinal Meningitis

Newport	1

Typhoid Fever

Providence	2

Chickenpox

Portsmouth	1

Scarlet Fever

Providence	4
Westerly	1

Poliomyelitis

Providence	1

Whooping Cough

Providence	1

Contagious Diseases Reported to Health Department of the State of Rhode Island for the Week Ending September 6, 1924

Diphtheria

Newport	1
Providence	5

Typhoid Fever

Providence	2
Woonsocket	2

Scarlet Fever

Providence	2
North Kingstown	1
Scituate	1

Whooping Cough

Providence	2
Westerly	2

Poliomyelitis

Cranston	1

Cerebrospinal Meningitis

Providence	1

THE NEW ENGLAND SURGICAL SOCIETY

MEETING TO BE HELD AT HARTFORD, CONN.

General Program

Friday, September 26th
St. Francis Hospital

9:00 a. m. Operative Clinic.
11:00 a. m. Dry Clinic.
Dr. John B. Boucher and Staff.
1:00 to 2:00 p. m. Luncheon, Hunt Memorial.
2:00 to 4:00 p. m. Scientific Program.
4:00 p. m. Automobile ride to Montevideo.
6:00 p. m. Annual dinner.
Guests of Mr. G. F. Heublein at the Tower, Montevideo.
President's Address.
Guest, Arthur D. Hill, Boston, Mass.

Saturday, September 27th
Hartford Hospital

9:00 to 11:00 a. m. Operative Clinic.
11:00 a. m. to 12:30 p. m. Dry Clinic.
Members of the Hospital staff.
1:00 p. m. Luncheon as guests of the Hartford Hospital.
2:00 p. m. Scientific Program, Hunt Memorial.

Scientific Program

Friday, 2:00 to 4:00 p. m.

1. Multilocular Papillary Cysts.
   Kendall Emerson, Worcester.
2. Result of cases of Artificial Impaction of Hip Fractures.
   Frederick J. Cotton, M. D., Boston.
3. Intussusception, Herniotomy through an old Colostomy.
   Dr. John M. Gile, M. D., Hanover.
4. Cancer of the Buccal Mucous Membrane.
   Dr. Channing Simmons, Boston.
5. Radium treatment with Observations upon its action in selected cases.
   George C. Wilkins, M. D., Manchester.
6. Principles of Intraperitoneal Drainage.
   Frank H. Lahey, M. D., Boston.

Saturday, 2:00 p. m.

7. Primary Carcinoma of Gall Bladder and Bile Passages.
   Richard Miller, M. D., Boston.
8. The Clinical Application of recent studies of Jaundice.
   Samuel Harvey, M. D., Boston.
9. The Value of the Hyperbilirubinemia in the Absence of Visible Jaundice in the Diagnosis of Cholecystitis.
   Michael F. Fallon, M. D., Worcester.
10. Surgical Treatment of Exstrophy of the Bladder.
    Lincoln Davis, M. D., Boston.
11. A. Difficulties in Distinguishing between Urinary Stones and Calcified Mesenteric Glands.
    B. Urethral Prolapse in women, an indication of Bladder Disease.
    Arthur L. Chute, M. D., Boston.
12. Urinary Retention; its significance and treatment.
    John H. Cunningham, M. D., Boston.
13. Peculiar cases of Intussusception.
    James S. Stone, M. D., Boston.

Officers for 1924

President, Fred B. Lund, M. D., Boston.
Vice-President, Frederick B. Sweet, M. D., Springfield.
Secretary, Philemon E. Truesdale, M. D., Fall River.
Treasurer, Peer P. Johnson, M. D., Beverly.
Recorder, Walter G. Phippen, M. D., Salem.

Executive Committee

Daniel F. Jones, M. D., William H. Bradford, M. D., David Cheever, M. D., John W. Keefe, M. D., Seldom B. Overlook, M. D.

Committee of Arrangements

Alfred M. Rowley, M. D., Chairman, George M. Bell, M. D., John B. Boucher, M. D., Edward R. Lampson, M. D., Ernest Wells, M. D.

President, Vice President, Secretary, Treasurer and Recorder, ex officio.

AMERICAN PROCTOLOGIC SOCIETY

NEW YORK AND LONDON MEETINGS

Upon adjournment of the 25th Annual Meeting of the American Proctologic Society which was held June 23-25, in the New York Academy of Medicine, some twenty of the members journeyed to London on invitation of the English Fellows who are the leaders of the specialty in Great Britain.

On July 9-11, they met in conjunction with

the sub-section on Proctology of the Royal Society of Medicine with Mr. Aslett Baldwin, the President, in the chair.

Dr. William A. Beach of Pittsburgh started the session with an historical paper on "The Evolution of Proctology." Following this, Mr. Graemme Anderson of London gave a most interesting paper on "The Injection Treatment of Hemorrhoids." Dr. Louis J. Hirshman of Detroit described a new operation for "Rectal Prolapse" and this was followed by a paper on "Pruritus Ani," illustrated with moving pictures, by Dr. J. F. Montague of New York.

The following day was devoted to a most interesting discussion of the subject of Cancer, the paper being presented by Mr. W. Ernest Miles. Members of both societies took part in the general discussion that followed each paper.

The visiting American proctologists were most lavishly entertained by their English hosts, from the opening luncheon at the Royal Automobile Club to the closing banquet at the Hotel Langham, and all felt highly elated at the success of the European trip.

The officers of the American Proctologic Society elected for the year 1924-1925 are:—

President ....Dr. Frank C. Yeomans, New York
Vice-President ....Dr. William A. Rolfe, Boston
Secretary-Treasurer ....
........................Dr. Jos. F. Montague, New York

APPOINTMENT OF MISS DOLFINGER

The American Child Health Association announces the appointment of Miss Emma Dolfinger as Director of the Association's Health Education Division. Miss Dolfinger, a native of Louisville, Kentucky, succeeds Miss Sally Lucas Jean, Director of the Division since its organization.

Miss Dolfinger has been a staff associate for two years working with Miss Jean in child health education activities of the former Child Health Organization before its amalgamation with the American Child Hygiene Association to form the American Child Health Association.

Miss Dolfinger has had wide experience in educational and scientific fields. For eight years she was head of the Department of Biology in the Louisville Girls High School. She later became instructor in Biological Science in Louisville Normal School, and finally acted as supervisor of science in the elementary schools of Louisville. She resigned this position when she became associated with the Child Health Organization.

Miss Dolfinger is a graduate of the University of Chicago and holds an M. A. degree from Teachers College, Columbia University. She has done graduate work at the University of California and the University of Chicago.

NOTES FROM THE WORCESTER DISTRICT MEDICAL SOCIETY

With the delivery of the next issue of the telephone directory which is due soon there will be opened at the Worcester Chamber of Commerce a physicians' bureau or telephone exchange which will take care of the calls for the subscribers to this bureau while they are absent from their telephones.

Already eighty Worcester physicians have subscribed for this service which will cost thirty-six dollars a year and it is expected that it will fill a long felt want.

In the new issue of the telephone directory under the name of each subscriber will be the statement "if you can not get this line call Park 7777." The subscriber when leaving his office unattended will call this number and give them such directions as he may wish. So far as it is known this is the first bureau of its kind to be established in this state.

The Children's Vacation Camp at Sterling conducted by the Southern Worcester County Health Association closed a very successful season August thirty.

Four hundred and thirty-two undernourished school children were given two weeks each at the Red Cross Lodge under careful supervision from a dietetic and hygienic standpoint and nearly all gained from one to six pounds in weight.

They were all given a thorough physical examination and the defects noted will be called to the attention of the parents of the children affected by the school nurses. Each child had his or her teeth cleaned and such dental work as necessary done.

The Southern Worcester County Health Association budgetted $3000 from the proceeds of the Christmas Seal Sale for this work and the balance was raised by solicitation from the public and from various clubs.

It is hoped that the success of this camp may lead to the permanent establishment of a Preventorium for Worcester.

THE REGISTRATION OF HOSPITAL HOUSE OFFICERS OR INTERNES

About 1918 threats were made that complaints alleging illegal practice of medicine by internes in hospitals would be presented to the courts for action. These threats were made by men representing physicians, who had been prosecuted by the Board of Registration in Medicine, for practicing without having secured registration in this state. It had been recognized that these hospital internes, while still students and generally so considered, were prescribing for the patients under their care. The standing of these students was above reproach from an ethical standpoint, but it was felt that since there was no attempt to commit any misdemeanor that no one would institute proceedings against them. Since the threat had been made, however, it seemed necessary to protect these students and a law was enacted, Chapter 244 of the Acts of 1920, providing for the registration of hospital internes.

At first this law was comparatively well observed, but it has been found recently that very little attention has been paid to it. Investigation by the Board disclosed that thirty-five internes in one hospital had not secured registration and several other institutions harbored many unregistered men.

The Board is obliged to secure compliance with the medical registration requirements of this State and is trying to have the law obeyed. Notices have been sent to hospitals and internes, but dilatory tactics have been resorted to. The Board has been compelled to issue an ultimatum in the form of a time limit and all who are still unregistered after the specified time will be prosecuted. All reputable practitioners should show ready compliance with all legal requirements, otherwise the profession will suffer in the estimation of the public.

It is hoped that the patience of the Board will not be tried further.

NEW ENGLAND SOCIETY OF PSYCHIATRY

On Wednesday, September twenty-fourth, the New England Society of Psychiatry will hold its regular fall meeting at Hospital No. 95, of the United States Veterans' Bureau, Northampton, Mass., as the guests of Dr. Appleton H. Pierce, Medical Officer in Charge. An interesting program has been arranged.

HAMPSHIRE DISTRICT MEDICAL SOCIETY

A regular meeting of the Society was held at Boyden's Restaurant at 4.30 P. M., Sept. 10, 1924, Dr. George W. Rawson presiding.

It was voted not to authorize the N. E. Telephone Co. to print a list of the Northampton physicians and surgeons in the local Telephone Directory.

The suggestion to have printed a complete catalogue of the Medical library was favorably acted upon.

The matter of inviting Registered Nurses to the Society Meetings came up for discussion and it was decided that this might be done at certain times, should the program be one that would especially interest them.

Acting on the request of Dr. Enos H. Bigelow that the presidents of the several district societies assist in preparing material for the committee on legislation, for the hearing at the State House in September, on the so-called Chiropractic Bills, the Members unanimously agreed that the Governor should be permitted to select the members of the Board of Registration in Medicine from the medical profession without the present restrictions and that there should be but one standard for qualification for fitness to practice medicine in this Commonwealth; said standard not to be lower than at present and to be determined by the Board of Registration in Medicine. The following committee was appointed to take action in this matter and to represent our Society at the hearing: Dr. J. A. Houston, Dr. G. E. McPherson and Dr. A. J. Bonneville.

Dr. G. E. McPherson, who was present, cordially invited the Members to attend a joint meeting of the Hampshire, Hampden, Berkshire and Franklin societies at the Belchertown State School. The date to be announced later.

An interesting paper on Ethmoidal Sinusitis was read by Dr. Ward Young and the meeting adjourned for dinner. There were thirteen members present.

The meetings will be held the second Wednesday of November, January, March and May.

Dr. Channing C. Simmons will deliver an address at the November meeting. Title: "The Treatment of Cancer with Especial Reference to Radiation."

Paul A. Hudnut,
Secretary.

THE INTERSTATE POSTGRADUATE ASSEMBLY

This organization directed by the Tri-State District Medical Association will conduct exercises lasting through five days, October 27, 28, 29, 30 and 31, 1924, at Milwaukee, Wisconsin, covering postgraduate work.

Leading men in medicine representing the most important medical schools have accepted places on the program. Boston is represented by Dr. C. Macfie Campbell, Dr. Francis H. Lahey, Dr. Milton J. Rosenau and Dr. Charles J. White.

Physicians of America in good standing in their state or provincial societies are invited to attend.

The Tri-State District Medical Association has arranged for a postgraduate clinic tour to Canada, British Isles and France to start May 18, 1925.

Clinics will be conducted in Toronto and Montreal, Canada; London, Liverpool, Leeds, Manchester and Newcastle, England; Edinburgh and Glasgow, Scotland; Dublin and Belfast, Ireland; Paris, Lyons and Strassburg, France. Special tours in the countries visited to all places of interest will be arranged. Cost of tour, all expenses included, will be under $1000.

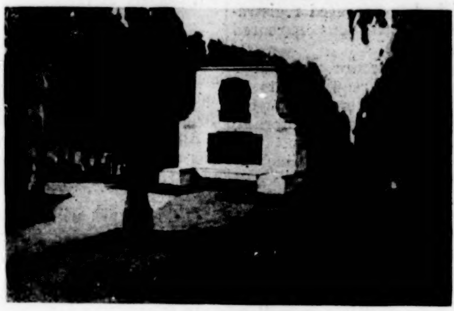
The tour is open to physicians in good standing in their state societies and also friends of the physicians. Dr. William B. Peck, Freeport, Ill., is the Managing Director.

THE DR. WILLIAM T. G. MORTON MEMORIAL AT CHARLTON, MASS.

On September first, nineteen hundred and twenty-four, the town of Charlton, Mass. called her citizens together for a Reunion and Old Home Day. The important feature of this occasion was the presentation to the town of a monument to the memory of Dr. William T. G. Morton by the Dr. Morton Memorial Committee.

The cost of this memorial was two thousand nine hundred dollars. The Committee needed about one thousand dollars to cover the cost and invitations had been sent to physicians, dentists, and other public spirited persons, to assist in raising the deficit.

Dr. Morton Memorial, Charlton, Mass.



First Public Demonstration of Ether as an Anaesthetic at Massachusetts General Hospital, October 16, 1846.

CHARLTON REUNION AND OLD HOME DAY ASSOCIATION

Rev. E. J. Preble, President
Charlton, Mass.
A. Fred Putnam, Treasurer

MEMORIAL COMMITTEE

Roy A. Bush, D.D.S., Chairman
Alonzo A. Bemis, D.D.S., Secretary
Spencer, Mass.
Thomas Ashworth
Edward A. Lamb
Harry Grimwade
C. S. Dodge, Esq.
Frank P. Barnard, D.M.D.
Rufus A. Howe, M.D.
Leon A. Storz, D.M.D.
G. R. Wakefield
William Rice, D.D.S., D.M.D.
W. Vernon Ryder, D.M.D
Alonzo B. Davidson
C. Wesley Hale, D.M.D.
U. C. Russell, D.M.D.

1819 1868

Elected to the Hall of Fame, New York University, November 6, 1920

HONORARY COMMITTEE

Hon. Channing H. Cox
Hon. Henry C. Lodge
Hon. David I. Walsh
Hon. Calvin D. Paige
Henry P. Walcott, M.D.
Charles A. Drew, M.D.
Homer Gage, M.D.
M. J. Fallon, M.D.
Hon. Rufus B. Dodge
E. A. Fisher, M.D.
Samuel B. Woodward, M.D.
William J. Mayo, M. D.
Charles H. Mayo, M.D.
Otto V. King, D.D.S., F.A.C.D.
S. Adolphus Knopf, M.D.
James C. Faunsnaught, Ph.G.
David H. Fanning

> "The fierce extremity of suffering of surgery has been steeped in the waters of forgetfulness, and the deepest furrow in the knotted brow of agony has been smoothed forever."
>
> —*Oliver Wendell Holmes, M.D.*

The program of exercises at the monument was as follows:

Invocation. Rev. Frederick G. Merrill, Charlton.

Historical Sketch of Monument. George R. Wakefield, Spencer.

Unveiling. Miss Julia N. Gould, Boston, daughter of Dr. Gould, one of those at first demonstration of ether.

Presentation of Monument to the Town. Frank P. Barnard, D. M. D., Worcester, Ex-President Mass. Dental Society.

Acceptance. Edward A. Lamb, Charlton, Chairman of Board of Selectmen.

Adjourn to Town Hall.

Singing by School Children. Miss Florence E. Putnam, Director.

Address. Francis M. Rackemann, M. D., of the Mass. General Hospital and Harvard Medical School, President of the Aesculapian Club and Secretary of the Harvard Medical Alumni Association, Officer in the World War.

Five-minute addresses by former residents and physicians.

"America."

CHARLTON REUNION AND OLD HOME DAY ASSOCIATION

Dedication of
DR. WILLIAM THOMAS GREEN MORTON MEMORIAL

Labor Day, Sept. 1st, 1924

Address of
FRANCIS M. RACKEMAN, *M. D.*

Ladies and Gentlemen:

The sixteenth day of October is an anniversary of world wide importance. It is celebrated each year with appropriate exercises at the Massachusetts General Hospital and often in other places. On Ether Day, the former house officers return to Boston and come together once again to show their respect for the hospital where they were trained and to show their appreciation of the great discovery which was made by Dr. William Thomas Green Morton in 1846 within its walls.

The Discovery of Ether is not only the greatest achievement of the hospital, but it was the first of the really great advances in medical science made during the 19th century. And for a time it was the only advance. Pasteur's discovery that germs were the cause of disease did not come until 1870, twenty-four years later, and whereas Ether had brought about, as Weir Mitchell put it, the "Death of Pain" and rendered surgery painless, the discoveries of Pasteur and Lord Lister regarding germs and antiseptics made surgery safe, and none of you need to be told what Painless Surgery and Safe Surgery have meant to the world in general, and perhaps to many of you in particular.

Many features of the Discovery of Ether are worthy of discussion. Dr. Morton must have been an extraordinary man, and I would call your attention to several features of his life and work which are not ordinarily referred to. For example, is it not remarkable that one of the greatest blessings to mankind should have been discovered by a man only twenty-seven years old? In our age of college education and post-graduate study, it is the rule for medical education, at least, to be prolonged until well after the youthful period, and it is to us surprising that such a remarkable and extraordinary advance in our knowledge should have been made after only four years of study. This fact, however, is not without a parallel in our time since. as some of you may know, the discovery of Insulin, the new cure for diabetes, was made with the able assistance of a man only twenty-three years old, who has not even yet graduated from Toronto University, but who shares the Nobel prize.

The story of Dr. Morton's early life most of you know. Here in this beautiful country town he was born and here his early life was spent on the farm and in the fields and woods. We are told that he always wanted to be a doctor, and in studying his early life it is remarkable to see with what persistance and tenacity this desire was maintained in spite of a series of early misfortunes, and in spite of Dr. Pierce's warning: "Young man, you hardly know what you talk about and how hard I have to work." How well his early career illustrates the influence of his boyhood environment. Characteristic of the typical New Englander, who must meet and solve by himself the real problems which occur each day, Morton exhibited a rare degree of initiative, intelligence, and especially the quality which has been called stick-to-it-iveness. Medicine in those days was learned mainly by apprenticeship to some eminent practitioner. The student of medicine had none of the advantages of hospitals, libraries and well-appointed laboratories which students have today. Preliminary education along general lines was required. This education Morton obtained in country schools and in the academies of surrounding towns.

But there were early misfortunes. We are told that Dr. Morton's school work was interrupted by an unjust punishment. We are told that later his father's business failed and it became necessary for him to stop his studies and go to Boston, where he entered a publishing house to spend his days doing manual labor. But we learn that during this time his spare moments were put to good account, and his only regret was that the day's work left him with so little time and energy for his books. But note that the idea of studying medicine never left him. Although his success in the publishing business was moderate, he was not happy.

It is not surprising, therefore, that we find him at the age of 21 in the new School of Dentistry recently established in Baltimore. Dentistry is first cousin to Medicine. In those days little was known of it, and the suffering from bad teeth must have been considerable. It is not surprising, therefore, that in dentistry Morton should find a suitable outlet for his desire to be of service to mankind. Now we see the scientific attitude of this young man who was then only 25 years old. Teeth in those days were removed. They were not extracted, but the roots were broken off and left in place, where the diseased process at the bottoms could remain active. Think of the ability of the man that he should recognize that these roots must be removed! But to remove them meant pain and intense suffering to the patient—a stumbling block which simply had to be crossed if success was to follow proper treatment. The use of local applications in the form of various drugs was not wholly satisfactory, although it helped somewhat.

In the meantime, in 1844, Morton entered the

Harvard Medical School where he attended the full course of lectures, and in addition to this school work continued to practice dental surgery and make false teeth. His skill grew. His practice also grew, and if we can believe the story this practice must have been tremendous when materials for making artificial teeth were ordered in hundred-pound lots, and the income of his business was measured in thousands of dollars per year. What a contrast this is to the experience of the young man two years out of the Dental School today.

But young Morton clung to his original object. He was determined that tooth roots should be extracted, and extracted painlessly. Ether was one of the drugs which he placed directly on the tooth to deaden the pain, and he was quick to notice that when considerable quantities were used, the patient became dopey or groggy. This was an important observation, and it was not long before we find him experimenting with it.

I quote from "Trials of a Public Benefactor," written by Dr. Nathan P. Rice in 1859.

> "Taking with him a quantity of sulphuric ether, Morton repaired to the country, where, among several experiments which he made with it, the most marked and satisfactory was upon a water spaniel. The ether was poured upon some cotton placed in the bottom of a tin pan, and the dog's head was held directly over it. In a short time, (to use his own words) 'the dog wilted completely away in his hands, and remained insensible to all his efforts to arouse him by moving or pinching him'; and yet after the removal of the pan, became in two or three minutes as lively and conscious as ever. Here was the effect sought, and here was demonstrated a complete success."

The next step was to try it on man—and first on himself. Again I quote from his own description:

> "Taking the tube and flask, I shut myself up in my room, seated myself in the operating chair, and commenced inhaling. I found the ether so strong that it partially suffocated me, but produced no decided effect. I then saturated my handkerchief and inhaled it from that. I looked at my watch and soon lost consciousness. As I recovered I felt a numbness in my limbs, with a sensation like nightmare, and would have given the world for some one to come and arouse me. I thought for a moment I should die in that state, and the world would only pity or ridicule my folly. At length I felt a slight tingling of the blood in the end of my third finger, and made an effort to touch it with my thumb, but without success. At a second effort I touched it, but there seemed to be no sensation. I gradually raised my arm, and pinched my thigh, but I could see that sensation was imperfect. I attempted to rise from my chair, but fell back. Gradually I regained power over my limbs, and full consciousness. I immediately looked at my watch, and found that I had been insensible between seven and eight minutes."

Morton was delighted with this experiment. That same day came a Mr. Frost with a severe toothache who wanted to be mesmerized, but on learning that Morton had something better, quickly submitted to the ether, and the tooth was quickly and easily extracted without pain of any kind. What a thrill this young investigator must have felt! No wonder he was anxious to study the subject further.

Again we find the attitude of the true scientist. Here was a young man coming into his prime, with a large business and many patients; a man, who, having made a discovery, resolved at once and without hesitation to give up this large and lucrative practice, to devote himself to the cause which he recognized as so great. I must emphasize that his life was directed along a straight line toward a single purpose, the relief of suffering by the removal of bad teeth, and that the discovery of Ether was only a means to the original end. What a clear vision and a dogged persistence this extraordinary man displayed.

His wife writes that on October 16, 1846, the day of the great demonstration at the Massachusetts General Hospital, Dr. Morton came home to her with a gloom of manner and evident depression. This gives us a suggestion of what mental suffering he must have endured. Just picture if you can, this young man only 27 years old, going to an old institution, there to demonstrate such a dramatic thing as Ether anesthesia, to the most distinguished physicians and surgeons of that day. Suppose the ether had not produced insensibility to pain or suppose that the patient had died from its effects! What a tremendous responsibility he undertook and what tremendous courage and fortitude he displayed in daring to present his discovery in this way. Is it any wonder that when it was over the reaction was intense?

I do not suppose that many of you realize the full significance of what Morton's discovery has meant to the world. Of course it is easy to appreciate the contrast between operations of that time and those of today. The big straps still attached to the chairs in the old operating amphitheatre at the Massachusetts General Hospital; the hooks firmly bolted to the wall; the ropes and blocks in the corner are mute evidence of what went on there at one time. I dare say all of you have smelt ether at one time or another, and no doubt many of you have been under its influence, but I doubt if any of us can have the slightest conception of what such an operation as the amputation of a leg must have been without anesthesia.

The relief of suffering has certainly been extraordinary. But aside from the purely humanitarian point of view, I am certain you can appreciate how difficult it must have been to work on a patient who was screaming and struggling during the operation. How about operations on the more delicate parts of the body, those painstaking and very careful suturings together of one tissue with another; the careful transplanting of tendons to correct the deformity of infantile paralysis; the removal of a piece of bone from the leg to be transplanted into a spine when the bones there are distorted by disease or some operation on the head or brain. These things are only possible now when the patient is absolutely relaxed and quiet. The slightest slip of the surgeon's knife or movement on the part of the patient would spell disaster; and so the discovery of Ether has extended the field of Surgery to an extraordinary degree.

But the discovery of Ether has led to still another series of advances. Do you suppose that when a surgeon removed a kidney that he first removed a man's kidney? What do you suppose happens when a spleen is removed, and how could this be investigated and studied? Is it entirely safe to remove a spleen? What about the heart? Quite recently a surgeon at the Peter Bent Brigham Hospital in Boston has been able to operate on a heart so as to enlarge the opening of one of the valves, and thus bring considerable relief to a victim of valvular heart disease. Do you suppose that he devised the operation and then experimented first on his patient? Of course not. The use of animals for surgery of all sorts has been quite essential—but doctors are human, just as you are. The cry of a dog or the scream of a cat is as real to them as it is to you. The administration of Ether, however, has ended the animal's suffering so that all these surgical procedures could be tried out on them without pain of any kind. On animals operations could be done in various ways, perhaps, to find the best method before using it on a patient. And how much animal experimentation has added to our knowledge?

I referred to Diabetes and its new treatment with Insulin. It was by tying off the duct of a dog's pancreas that Dr. Banting and Mr. Best succeeded in discovering this other substance which is produced by the gland.

Most of you know that Diphtheria Antitoxin is made from the blood of a horse who has been immunised against the diphtheria germ, and I could add other illustrations of how the use of a few animals in an absolutely humane manner in the laboratory has resulted in the saving of countless human lives.

And now I think of one more point. The later story of Dr. Morton's life is sad indeed. His great work was done at the age of twenty-seven, but he lived on for twenty-two years afterwards—a life full of distress and anxiety. The value to mankind of his discovery was soon recognized by the Hospital and by the Medical Societies; and we can all imagine how such an important discovery might rightly bear with it a handsome financial reward. On this count Morton was beset by a number of men jealous of his success, who, in the hope of securing a share, large or small, in this financial return, tried to take the honor and glory from him. His former partner who, the year before, had introduced "laughing gas," claimed to have given Morton the idea of producing insensibility by inhaling a gas. A man in Georgia named Long, who, three years before, had administered Ether to a patient, but who was so indifferent as not to realize what he had done, made an effort to claim priority. A chemist in Boston and a friend of Morton, who had made some technical suggestions early in the work, tried to assume an important role.

Dr. William H. Welch has summarized the results of a controversy which was so bitter when he said:

> "The chief glory belongs to Morton's deed in demonstrating publicly and convincingly the applicability of anaesthetic inhalation for surgical purposes and under such fortunate circumstances that the knowledge became, as quickly as it could be, the blessed possession of the whole world."

What a contrast there is between this bitter feeling of previous years and the hearty coöperation among those men engaged in research work today when a discovery made in one institution by one group of men is quickly revealed to other men in other institutions for the express purpose of furthering the experiment and of finding out if similar results can be obtained by other hands. Does not such an attitude promise much for the future progress of science throughout the civilized world?

And now, my friends, I fear I have given you something of a sermon. I am deeply appreciative of the opportunity which your Committee has given me to come before you, and I am greatly honored by being here on this occasion as the representative of such an institution as the Massachusetts General Hospital.

I congratulate the Town most heartily on their recognition of what Dr. Morton has done for the civilized world, and on their splendid tribute to his memory.

SUMMARY OF REPORT ENTITLED "HEALTH WORK FOR MOTHERS AND CHILDREN IN A COLORED COMMUNITY"

The New York Association for Improving the Condition of the Poor has just issued a six-year report upon an intensive health service for colored mothers and children in the Columbus Hill district of New York City. The A. I. C. P. provided an educational nursing service for mothers in their homes, thus supplementing and strengthening the work of the Sloane Hospital for Women and the New York Nursery and Child's Hospital, both of which provide a ward service, the latter having an out-patient delivery service, as well.

The A. I. C. P. has summarized, in a series of tables, the results obtained by prenatal and postnatal care. Its experience also tends to lend substance to the growing conviction that prenatal care can produce its best results only where provision is made for syphilitic treatment and nursing follow-up.

The area in which the prenatal work under review was carried on comprises eight city blocks in one of the most congested colored districts in New York City, a district in which infant mortality was 142 per thousand births in 1916 and 1917, or nearly twice that prevailing among the general population of the City.

During the six-year period under review a total of 1224 pregnancies were supervised by the A. I. C. P., an average of 204 a year. The continued six years' experience of 1224 births is about equivalent to the number of births which would occur within a given year in a district having a population of 50,000. The A. I. C. P. has computed its data on the basis of the combined study in the belief that such rates would not only be more reliable than if based on 200 or 300 cases, but they would also indicate what results might be expected in a much larger community during a given year.

That 94 per cent. of the mothers under care were delivered either in hospital wards or by hospital doctors at home, illustrates how closely this service was tied up with that of the hospitals.

The following table summarizes the amount of prenatal care given during the six-year period:

Number and Percentage of Cases, According to Duration of Prenatal Care:

Duration of Prenatal Care	*Cases*	*Per cent*
Total	1224	100.0
No prenatal care	5	.4
Less than one month	9	.7
One month and less than two	313	25.5
Two months and less than three	241	19.6
Three months and more	656	53.5

Adequate supervision of the expectant mother and proper care at delivery, the report says, must be provided if the abnormally high death-rate of colored mothers from causes associated with child-birth is to be reduced. While the relatively small number of cases deprives the report of adequate statistical reliability, yet there appears to be good evidence for believing that better results for the mother have followed in proportion to the greater amount of prenatal care. This is brought out in a table which accompanies the report.

There can be no question that the group receiving the greater amount of prenatal care shows the best results; for in this group, 93.2% of the issues were reported as live babies at the end of the first month, whereas in the former group only 83.1% were so terminated. It must be pointed out, however, that these results are largely influenced by the fact that the group receiving the lesser amount of prenatal care would of necessity include the greater portion of these mothers whose pregnancy had been prematurely terminated.

There is a growing conviction that prenatal care will secure optimum results only where provision is made for syphilitic treatment and nursing follow-up. In order to explore this important field adequately the A. I. C. P. made a thorough study of syphilitic infection among these mothers and has completed a record of the amount of treatment provided. It recognizes that the problem of congenital syphilis is still in a controversial stage and that definite conclusions regarding it must be left to the medical specialists working in this field, merely presenting the facts, inviting further study by the medical profession to determine their full implication.

Of the 1,224 pregnancies coming under the A. I. C. P.'s supervision, 286 or 23.3% were apparently complicated by syphilis. In other words, 198 of the mothers under care presented either symptoms or medical histories which in the judgment of the clinic physicians were suggestive of syphilis. The 192 mothers had had 286 pregnancies while under care.

While it is unfortunate that for 22.4% of the cases we were not able to secure a report on Wasserman findings, there would seem to be no question that the majority of these mothers were suffering from syphilis.

It is generally recognized by medical authority that syphilis is one of the leading causes of miscarriages and still-births. In order to trace this relationship more adequately the A. I. C. P. secured for all of the mothers enrolled in the study a report of all previous pregnancies, and these reports, together with the A. I. C. P.'s own observations while under its care, enable them to present a striking picture of the toll which this disease exacts of early infant life. The A. I. C. P.'s results are confirmed by a previous study in St. Louis undertaken by Drs. Park J. White and Borden Veeder. The following table summarizes the results of two studies in this respect:

END RESULTS OF ALL PREGNANCIES OF SYPHILITIC MOTHERS AS REGARD LIVE BIRTHS, MISCARRIAGES AND STILL-BIRTHS

	St. Louis	Study	Present	Study
	No.	%	No.	%
Deliveries	1463	100.	737	100.
Live births	1145	78.1	583	79.1
Miscarriages and still-births	318	21.7	154	20.8

For the pregnancies of syphilitic mothers which had occurred prior to our entering the field the A. I. C. P. also was able to study the mortality of all children under two. The end results of these pregnancies are presented in the following table:

END RESULTS OF DELIVERIES OF SYPHILITIC MOTHERS UNTREATED AND UNSUPERVISED

	No.	Per cent.
Total pregnancies	449	100.
Still-births and miscarriages	110	24.5
Children dead within two years	131	29.2
Children living at end of two years	208	46.3

It will be noted that of 339 children born alive, 131 had died within the first two years, a mortality of 383 per 1,000.

The group of mothers suffering from syphilis but receiving neither adequate prenatal instruction nor medical treatment had lost 53.7% of their babies either through miscarriage, still-birth or death during the first two years.

An important feature of this study was the follow-up of surviving children both for the purpose of bringing them under treatment and for observing the effect of congenital syphilis on the growing children.

Nursing follow-up of patients under care of the venereal disease clinics was begun in August, 1920. At the time of the close of the study (April 1st, 1923) this work had been under way for less than three years. A much longer period is required both to bring the maximum number of women under care and to arrest the disease among a considerable number of those under treatment. But even with the limited time during which the experiment has been in progress, 77 of the syphilitic mothers, or 40%, have been given fairly adequate treatment.

INFANT MORTALITY FOR 1923

The American Child Health Association has recently published its statistical report of infant mortality for 1923 in 665 cities of the United States This report covers 30 of the 48 states in which birth records are of such accuracy as to receive recognition from the United States Bureau of the Census, and 38 states in which mortality records are sufficiently accurate to be acceptable.

The cities, as usual, are classified according to population, with the following results, as compared with 1922.

	Total	
Population	1922	1923
Over 250,000	79.3	76.1
100,000—250,000	83.6	84.9
50,000—100,000	81.0	83.8
25,000— 50,000	77.7	79.2
10,000— 25,000	80.1	81.8

The lowest rates are found in Santa Cruz, California, and Winchester, Mass., both with 26, and both with population below 25,000. The highest rate is found in Goldsboro, N. C., with 161, also in the low population group.

NEWS ITEMS

THE SPRINGFIELD ACADEMY OF MEDICINE

The meetings of this academy are held the second Tuesday evening of each month. The September meeting was held on the ninth. Dr. Charles Farr, Associate Professor of Surgery at Cornell Medical School, read a paper on Acute Osteomyelitis in Children with lantern slide demonstrations.

The discussion was opened by Dr. J. M. Birnie.

HOUSE OF MERCY HOSPITAL, PITTSFIELD

The House of Mercy Hospital, of Pittsfield, celebrated the fiftieth anniversary of its birth on September 4, 1924. Open house at the hospital throughout the day, all departments being open to the visitors, with work being carried on in as many as possible. Fifteen minute talks were given by the heads of some of the departments. Luncheon was served to the doctors of the staff and the visiting physicians at noon.

In the afternoon Henry Colt, M. D., chief of the medical and surgical staff, read an historical sketch of the developments of the last fifty years, and this was followed by a more complete historical sketch of all the activities of the hospital.

In the evening there was a reunion of the alumni association of the nurses training school, and they performed a most interesting mock operation, with skits on the various members of the staff.

The House of Mercy is about to erect a large addition to its training school quarters, instal new laundry service in the hospital, complete new laundry outfit, and several minor improvements in the hospital.

NEWS ITEMS FROM BERKSHIRE DISTRICT

Dr. Charles H. Richardson and wife have returned from a trip abroad, and he is now on duty at Hillcrest Hospital.

Dr. R. A. Woodruff has resumed his work following a month's vacation at Gloucester.

A group of physicians from the Westfield Tuberculosis Sanitarium have just completed an extensive survey of the children at the camp for undernourished children operated by the Kiwanis Club of Pittsfield.

REMOVALS

Dr. Henry A. White has moved from Taunton (Bristol North) to Orleans (Barnstable.)

Dr. Frederic L. Kellogg has been transferred from the Middlesex South to the Suffolk District, where he has a residence at 350 Commonwealth Ave.

Dr. James B. Ayer announces the removal of his office to 475 Commonwealth Ave.

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NOTICE

U. S. CIVIL SERVICE EXAMINATION

Assistant Scientific Aid in Biological Assay

The examination will be held throughout the country on October 8. It is to fill vacancies in the Bureau of Chemistry, Department of Agriculture, at an entrance salary of $1500 a year. Advancement in pay may be made without change in assignment up to $1860 a year.

The duties of the position are to assist in the injection of drugs into animals with the object of determining the physiological effects, and the recording of results; the administration of anesthetics; and other duties of a general nature in the laboratory conducted by the Bureau of Chemistry in connection with the work of standardization of drugs through biological assay.

Competitors will be rated on elementary biology, mathematics through geometry, elementary physiology and laboratory methods, and education, training and experience

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the Board of United States Civil Service Examiners at the postoffice or custom house in any city.

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OBITUARY

LOWELL FRANKLIN WENTWORTH, M. D.

Dr. Lowell F. Wentworth, assistant commissioner of mental diseases, Massachusetts, died at the Massachusetts General Hospital, Boston, September 11, 1924, at the age of 64, after a brief illness.

Dr. Wentworth was a native of Bridgewater, where he was born Dec. 4, 1859, the son of Lewis and Cordelia Wentworth. Entering Dartmouth College he took the medical course there, and was graduated with the class of 1884. His first official post was at the Brattleboro, Vt., Retreat for the Insane, where he remained for two years, later accepting a position at the Topeka, Kas., Hospital for the Insane, subsequently becoming assistant superintendent. Seven years later Dr. Wentworth became superintendent of the Hospital for the Insane at Osawatomie, Kas., where he remained for three years, leaving there and coming east to become superintendent of the City Almshouse in Boston Harbor. Following a service there of two years he became executive officer of the Mass. State Board of Insanity in 1899. He was a member of the American Medico-Psychological Association, the New England Society of Psychiatry and the Massachusetts Medical Society.

In Melrose Dr. Wentworth had occupied several posts of honor. He was an alderman for several terms, and was for twelve years on the school board, and for nine years of that time was its chairman. He was a deacon of the First Congregational Church and was active in Masonry, having held membership in Wyoming Lodge, of which he had been secretary for the last three years; St. Paul Chapter and Hugh de Payens Commandery.

The surviving members of Dr. Wentworth's family are his wife, who was Annette Crocker of Bridgewater, three daughters and two sons.

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DEATH NOTICE

Dr. De Courcey John Driscoll, a fellow of the Massachusetts Medical Society, died at his home in Boston, February 11, 1924, of dementia praecox, at the age of forty-five.

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SOCIETY MEETINGS

Bristol South Medical Society

Next meeting will be held Thursday, November 16, 1924.

Essex North District Medical Society

October 8, 1924. Quarterly meeting at Danvers State Hospital, combined with the Middlesex North, Middlesex East and Essex South District Societies. Clinical program arranged by Dr. J. B. Macdonald, Superintendent of the Danvers State Hospital. Officers of the Massachusetts Medical Society will speak on matters concerning the welfare of the Society.

January 7, 1925. Semi-annual meeting at Haverhill.

May 6, 1925. Annual meeting at Lawrence.

Hampden District Medical Society

Meetings to be held on the third Tuesday of January and the third Tuesday in April.

Dr. William J. Mayo is expected to attend the combined meeting of the four western Districts to be held in Springfield in October.

Hampshire District Medical Society

The meetings will be held the second Wednesday of November, January, March and May.

Dr. Channing Simmons will deliver an address at the November meeting. Title: "The Treatment of Cancer, with Especial Reference to Radiation."

Middlesex East District Medical Society

Wednesday, September 17. Colonial Inn, North Reading, Mass. Dr. Lloyd Brown, "Does the Treatment of Faulty Body Mechanics Have a Place in General Practice?"

Wednesday, October 8. Danvers State Hospital. Joint meeting.

Wednesday, November 19. Harvard Club. Dr. George K. Pratt, "Community Aspects of Psychiatry."

Wednesday, January 21. Harvard Club. Dr. Franklin K. White, "Diagnosis of Gall-Bladder Disease."

Wednesday, March 18. Harvard Club.

Wednesday, April 15. Harvard Club.

Wednesday, May 13. Colonial Inn, North Reading.

Middlesex North District Medical Society

October 10, 1924. Joint meeting at Hathorne.

January 28, 1925.

April 29, 1925.

Norfolk District Medical Society

October 28, 1924. Boston Tuberculosis Hospital, Mattapan. Subject: Tuberculosis. Speakers: The Superintendent and Drs. Kelley and Remick.

November 25, 1924. Masonic Temple, Roxbury. Subject: Diabetes—with especial reference to insulin. Speakers: Dr. Joslin and probably one other.

January 27, 1925. Masonic Temple. Subject: "Some Trends of Medical Teaching and Medical Practice." Speakers: Drs. A. S. Begg and W. P. Bowers.

February 24, 1925. Masonic Temple. Subject: "The Need of Periodical Physical Examinations and How to Make Them." Speaker: Dr. Francis H. McCrudden. A second speaker will be selected to present another subject at this meeting.

March 31, 1925. Tufts College Medical School. This meeting given over to Drs. Leary and Watters for the purpose of giving us a medical examiners' talk.